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ABSTRACT

Focusing on the Prereading Skills Program, this report furnishes the results and evaluations of a field test by fourteen teachers in ten Wisconsin and Illinois schools. A total of 23 kindergarten classes and 545 children were involved in the program, which teaches three visual skills and two sound skills related to the reading process and prerequisite for success in learning to read. The test design provided for objective evaluation of the program in terms of achievement of its internal objectives and for subjective evaluation in terms of usability and effectiveness of the program activities and materials. Test data revealed that the visual materials were effective, while the sound materials needed additional development to meet the standards of skill mastery. Contents of this report include the following: lists of tables and of figures; and introduction explaining the five prereading skills, the instructional program, and its expected outcome; a description of the field test; an analysis of the formal assessment data; a description of the instructional program; a conclusion; and an appendix. (JM)

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Technical Report No. 269

THE 1971-72 FIELD TEST OF THE PREREADING SKILLS PROGRAM

by

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Report from the
Basic Prereading Skills Component of
Program 2: Development of Instructional Programs

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Statement of Focus

Individually Guided Education (IGE) is a new comprehensive system of elementary education. The following components of the IGE system are in varying stages of development and implementation: a new organization for instruction and related administrative arrangements; a model of instructional programing for the individual student; and curriculum components in prereading, reading, mathematics, motivation, and environmental education. The development of other curriculum components, of a system for managing instruction by computer, and of instructional strategies is needed to complete the system. Continuing programmatic research is required to provide a sound knowledge base for the components under development and for improved second generation components. Finally, systematic implementation is essential so that the products will function properly in the IGE schools.

The Center plans and carries out the research, development, and implementation components of its IGE program in this sequence: (1) identify the needs and delimit the component problem area; (2) assess the possible constraints—financial resources and availability of staff; (3) formulate general plans and specific procedures for solving the problems; (4) secure and allocate human and material resources to carry out the plans; (5) provide for effective communication among personnel and efficient management of activities and resources; and (6) evaluate the effectiveness of each activity and its contribution to the total program and correct any difficulties through feedback mechanisms and appropriate management techniques.

A self-renewing system of elementary education is projected in each participating elementary school, i.e., one which is less dependent on external sources for direction and is more responsive to the needs of the children attending each particular school. In the IGE schools, Center-developed and other curriculum products compatible with the Center's instructional programing model will lead to higher student achievement and self-direction in learning and in conduct and also to higher morale and job satisfaction among educational personnel. Each developmental product makes its unique contribution to IGE as it is implemented in the schools. The various research components add to the knowledge of Center practitioners, developers, and theorists.

Foreword

This report of the 71-72 field test of the Prereading Skills Program was written jointly by members of the Prereading Skills Program staff and by members of the Evaluation staff of the Quality Verification section. Chapters II and III, dealing with the design of the field test and the analysis of the formal assessment data, were written by the Evaluation staff. The remaining chapters were written by the Prereading Skills Program staff.

Contents

		Page
	Foreword	iv
	List of Tables	vii
	List of Figures	ix
	Abstract	xi
I.	Introduction	1
	The Five Prereading Skills	1
	Explanation of the Five Skills	1
	Visual Skills	1
	Sound Skills	2
	Instructional Program	2
	Visual Program	2
	Sound Program	2
	Expected Outcomes	3
II.	Description of the Field Test	5
	Field Test Objectives	5
	Subjects	5
	Procedures and Instrumentation	5
III.	Analysis of Formal Assessment Data	9
IV.	The Instructional Program	13
	Visual Program	13
	Sound Program	17
	Teacher Materials	33
	The Management System	36
	Summary	37
V.	Conclusion	39
	Appendix	41

List of Tables

Table		Page
1.	Prereading Skills Program, 1971-72 Field Test	6
2.	Proportion of Students from Two School Settings Who Showed Mastery of the Five Prereading Skills on Tests Conducted by Center Personnel	10
3.	Proportion of Students from Two School Settings Who Showed Mastery of the Five Prereading Skills on Tests Conducted by School Personnel	10
4.	Changes in Sound Picture Associations	23

List of Figures

Figure		Page
1.	Instructional Sequence of Visual Skills Activities, 1972-73.	15
2.	Instructional Sequence of Visual Skills Activities, 1971-72.	16
3.	Instructional Sequence of Sound Skills Activities, 1972-73.	22
4.	Instructional Sequence of Sound Skills Activities, 1971-72.	22

Abstract

The Prereading Skills Program, a kindergarten-level instructional program designed to prepare children for beginning reading instruction, was field-tested in 1971-72. The program teaches three visual skills and two sound skills which are logically related to the reading process and which are judged prerequisite for success in learning to read.

Visual Skills	Sound Skills
Attention to Letter Order	Sound Matching
Attention to Letter Orientation	Sound Blending
Attention to Word Detail	

Fourteen teachers in ten Wisconsin and Illinois schools participated in the field test. In total, they had 23 classes, including 545 children. The ten schools represented both multiunit and traditional classroom organization, in both urban and non-urban settings. The field test design provided for objective evaluation of the Prereading Skills Program in terms of achievement of its internal objectives and for subjective evaluation in terms of usability and effectiveness of the program activities and materials.

The Prereading Skills Test, which is a program component, was administered both by Research & Development Center personnel and by school personnel. The two sets of data differ in several respects, but lead to substantially the same conclusions. The testing results showed that fewer than 30 percent of the field test pupils mastered the five prereading skills prior to instruction. Instruction in the first visual skill taught, Letter Order, increased pre-instruction mastery of the two remaining visual skills, Letter Orientation and Word Detail. Post-instructional testing of Letter Order and Letter Orientation showed mastery by up to 78 percent of the pupils tested. Posttesting of Word Detail was not carried out, because no teacher finished the Word Detail instructional unit. For Sound Matching, the posttesting results gathered by the Center indicate mastery by only 33 percent of the pupils tested while school personnel report mastery by 67 percent of the pupils they tested. Center testing shows no pupils mastering Sound Blending, while school personnel show mastery by 30 percent of those tested.

The data gathered by testing thus indicated that the visual program materials used in the 71-72 field test were effective, whereas the sound program materials needed additional development in order for children to meet the desired standards of skill mastery.

Evaluation of the program's usability was carried out by means of observation of teachers using the program and consultation with them and by means of questionnaires answered by teachers and principals. Information gathered by these procedures confirmed that kindergarten teachers could successfully implement an individualized program to teach prereading skills. It was therefore decided to retain the overall design of the Prereading Skills

Program in subsequent versions of the materials. At the same time many revisions were judged necessary to adjust the length and pacing of the program, to improve the classroom management system and to clarify the activity descriptions. Both the Prereading Skills Test, which is the formal assessment instrument of the program, and the inservice training to prepare teachers to use the program needed additional development.

A strong indication of the success of the Prereading Skills Program was the attitudes of teachers who participated in the field test. Many of them expressed concern before beginning the program that the program appeared too highly structured and too intellectually demanding for kindergarten children. They were also concerned that the classroom management would be impractical to implement. At the conclusion of the field test, however, teachers strongly endorsed the program, stressing its organized sequence of activities and its provisions for individualization of instruction.

I
Introduction

The Prereading Skills Program is designed to evaluate prereading skills and to provide instruction in these skills at the kindergarten level. The program has been developed at the Wisconsin Research and Development Center for Cognitive Learning and is a curriculum component of the Center's system of Individually Guided Education (IGE). The Prereading Skills Program has two elements: an instructional program which teaches five basic prereading skills; and a criterion-referenced diagnostic test, the Prereading Skills Test, which evaluates the same five skills.

The instructional program consists of a variety of activities including games, songs, and stories; a management system; a schedule; a resource file; and a teacher's handbook. Although the instructional program includes large group activities, the major portion of the program consists of small group games with primary emphasis on groups arranged according to individual needs. The diagnostic test provides a way to identify each child's needs, and the test results serve as a basis for forming instructional groups.

Kindergarten classes use the Prereading Skills Program for an average of one hundred twenty minutes per week; however, the individualization of the program and the emphasis on small group activities allow teachers considerable flexibility in implementing the program.

The Five Prereading Skills

The selection of prereading skills for this program was based on more than five years of experimental research on the reading process and on learning to read. The underlying assumption that has evolved from this work is that reading is not a single skill, but a complex of skills which can be divided into simpler, component skills. Studies done in the development of this program have shown that these component skills can be reliably assessed shortly after a child begins kindergarten and that skill needs vary widely among children, thus implying that an individualized program is required for efficient instruction.

A skill had to meet two criteria before it was considered for emphasis in the program. First, the skill had to relate directly to learning to read, and second, it had to show a high correlation with reading success. If a skill met both criteria, research was done to determine whether the skill was lacking in a sufficient number of kindergarten children to justify its inclusion and emphasis in the program. By these procedures three visual and two sound skills were selected for testing and instruction:

Visual Skills
1. Attention to Letter Order
2. Attention to Letter Orientation
3. Attention to Word Detail

Sound Skills
4. Sound Matching
5. Sound Blending

Explanation of the Five Skills

Visual Skills

Attention to Letter Order. *on is not the same as no*

A child knows that an engine pulling some cars and a caboose is a train whether the coal car comes before the flat car or the flat car comes before the coal car. But letter strings are different: *was* looked at from right to left is *saw*, and *swa* is meaningless. Thus, a child needs to learn that there is an absolute

ordering of letters in a word from left to right. This concept does not come naturally to many children, especially to those who have not been exposed to letters and words before kindergarten.

Attention to Letter Orientation. *n is not the same as u; p is not the same as q*

The orientation of an object has little influence over its identity in a child's environment—until he learns about letters. Through experience he has learned that a frying pan is a frying pan whether the handle points to the left or to the right, and an arrow is an arrow whether the tip is pointed up or down. But this is not the case for letters: *b* facing the other way is *d*, and an *n* turned upside down is *u*. Some children easily learn that the special set of items called letters requires attention to orientation, but many others need carefully sequenced instruction.

Attention to Word Detail. *make is not the same as made*

One of the most common mistakes children make in learning to read is to attempt to identify a written word by its first letter. For example, a child trying to find his name on a [illegible] often chooses someone else's name that begins with the same letter. The words included in beginning reading programs are frequently so limited that a child's first-letter identification strategy (and perhaps attention to word length) may be successful as he begins to read. But with more advanced materials this strategy will fail. Therefore, a child needs to learn to pay attention to all details of a word before he identifies it.

Sound Skills

Sound Matching. *both shoe and shell start with the sound sh; both jump and hop end with the sound p*

To associate letters with sounds a child must first learn to recognize, to produce, and especially to match individual speech sounds. For example, noting that the sound *sh* occurs at the beginning of both "*sh*oe" and "*sh*ip" helps a child generalize that the spelling *sh* has the sound *sh*. However, before reading instruction begins, few children gain experience in isolating and matching individual sounds which are meaningless in themselves. Their experiences are almost exclusively with sequences of meaningful sounds, that is, words and sentences. For many children, learning to match sounds is especially difficult, because the task is so abstract.

Sound Blending. *the sounds p + a + t blend to make the word pat*

After a child has learned to associate letters with sounds, he should then learn to blend these isolated sounds into words; for example, *f + a + n* is *fan*. While some children develop this skill without difficulty during their first year of reading experience, others require extensive practice in order to acquire it.

Instructional Program

The instructional program includes a wide variety of interesting activities designed to teach the five skills. For each skill the program contains a sequence of games and other instructional activities to lead children from a simple, concrete application of the skill to a more complex and abstract application.

The program also teaches secondary skills, including the concepts of same/different, and the association of sounds first with pictures, then with letters. In addition, children who use the program experience certain social behaviors, including working with other children in cooperative activities, and may acquire a small sight vocabulary of real words.

Visual Program

The Visual Program begins with large group preliminary activities to teach the concept of same/different. Then the children begin to work on each of the specific skills. For each of these skills, the children participate in large group activities, small group games, and individual activities. The major portion of the instructional program consists of playing small group games; primary emphasis is on groups arranged according to individual needs.

Sound Program

The Sound portion of the Prereading Skills Program includes two skills, *Sound Matching* and *Sound Blending*. In addition, the use of *Sound Picture Associations* and *Letter-Sound Correspondences* makes the learning of these skills more meaningful to the children.

Sound-Picture Associations. To teach the two sound skills, a teacher must refer to isolated sounds, and the children must understand

that these sounds are units which can be put together to make a word. To create a basis for this understanding, the children learn 28 sounds, each in association with a picture that "says" that sound. The procedure for teaching Sound-Picture Associations is unique to this program. Instead of using the traditional method of associating a letter with a word that begins with that letter (e.g., *m* goes with *m*oon), the children learn to associate a sound with a picture that "says" that sound (e.g., the picture of the boy eating cake says *m*). The use of Sound-Picture Associations ensures that the sounds children match and blend are familiar to them.

Sound Matching. After the children learn some of the Sound-Picture Associations, they begin to "match" sounds in first, and then in last position. (Do you hear *sh* in *sh*oe? Do these words start with the same sound: mouse-mop? Do these words end with the same sound: brush-rush?)

Letter-Sound Correspondences. As the children learn to match sounds in beginning and final position, they learn to associate letters with some of the sounds with which they are already familiar. The children learn to associate a sound with each of twelve letters. The program does not emphasize teaching the *names* for these letters, as it would be too demanding to expect a child to learn two new associations at once. It is far more important that a child learn to associate a *sound* with a letter than a *name* with a letter.

Sound Blending. After the children learn the Letter-Sound Correspondences, they also learn to blend these sounds into words.

Expected Outcomes

The most important outcomes expected from the Prereading Skills Program are that participating children will be ready to learn to read when they reach formal reading instruction and that they will experience little difficulty in acquiring initial reading skills. The more specific objectives are that the children will develop the following skills:

1. ability to match letters, letter strings, or printed words, taking into account the orientation and order of the letters and the full configuration of the words;
2. ability to match words on the basis of constituent sounds and to decide whether or not a given word contains a particular sound;
3. ability to blend sounds into real words, using letters as stimuli for the sounds.

In all these objectives, the major concern is to develop the child's understanding so that he can apply these skills to new situations.

II
Description of the Field Test

Field Test Objectives

The 1971-72 field test of the Prereading Skills Program was designed to answer both formative and summative evaluation questions about the program. The formative questions were asked to obtain information useful for revising the program. Such questions concerned the usability and effectiveness of each of the program's activities and materials. In addition, each teacher's implementation practices and the effectiveness of the record keeping and management systems were of interest in this evaluation.

The field test was also intended to determine the summative question of whether the Prereading Skills Program, when implemented according to the design of its developers, meets its objectives. The terminal objective of the program is the reduction of reading failure in the second year of school as indicated by achievement scores on the Gates-MacGinitie Reading Test. The achievement of this objective will be evaluated at the end of the 1972-73 school year when the kindergartners who participated in the field test will have completed their first year of reading instruction. The summative evaluation reported here is therefore concerned with the interim objective of the program, that is, the degree to which the children using the Prereading Skills Program mastered the five prereading skills during their kindergarten year.

Subjects

Fourteen kindergarten teachers and their pupils from seven Wisconsin and three Chicago, Illinois schools participated in the field test. Three of the Wisconsin schools were multiunit in organization and were located in cities with a population of over 46,000. Two of the Wisconsin schools were located in rural areas, and the remaining five field test schools were in urban areas of Beloit, Wisconsin and inner-city Chicago, Illinois. In these seven schools, the kindergarten classrooms were self-contained in organization. Table 1 includes a listing of the schools and number of teachers, classes (a.m. & p.m. sessions), and children participating in the field test.

Procedures and Instrumentation

Memorandum of Agreement. Arrangements for participation in the field test of the Prereading Skills Program were made for each school involved among the school administrators, the school principal, and the Center. These arrangements were formalized in a Memorandum of Agreement which listed the respective responsibilities of the participating schools and the Center. (See Appendix.) Implicit in the agreement, and stated explicitly at the teacher inservice, were six expectations concerning the implementation of the program. These expectations were stated in terms of "requisites for effective implementation" and were used as a basis for evaluating each teacher's use of the program:

1. Attendance of each participating teacher at a one-day training conference sponsored by the Center prior to the implementation of the program.
2. Availability of materials in sufficient quantity for all children.
3. At least 1 1/2 hours per week of skill instruction.
4. Instruction consonant with the child's skill status.
5. Assessment according to the plan called for in the instructional schedule.
6. Keeping records current.

Table 1

Prereading Skills Program
1971-72 Field Test

School	Urban/ Non-urban	Organization	Number of teachers	Number of classes	Number of pupils
McKinley Elementary Appleton, WI	N	Multiunit	3	5	124
Morgan L. Martin Green Bay, WI	N	Multiunit	2	4	114
Wilson Elementary Janesville, WI	N	Multiunit	2	4	74
Gebhardt Elementary Black River Falls, WI	N	Self-contained	1	1	26
Bowler Elementary Bowler, WI	N	Self-contained	1	2	40
Burdge Elementary Beloit, WI	U	Self-contained	1	2	41
Todd Elementary Beloit, WI	U	Self-contained	1	2	37
Medill Primary Chicago, IL	U	Self-contained	1	1	32
Goldblatt Elementary Chicago, IL	U	Self-contained	1	1	22
Bryn Mawr Elementary Chicago, IL	U	Self-contained	1	1	35
TOTAL 10			14	23	545

In order to determine whether these expectations were being met and to answer the formative and summative field test questions, a combination of procedures were used during the 1971-72 school year. These procedures included observations, interviews, written questionnaires, and testing.

Teacher Training. The introduction of field test teachers to the Prereading Skills Program occurred at a day-long inservice workshop held at two sites. Participants from Green Bay, Bowler, Black River Falls, and Appleton attended the session in Appleton in late September, while participants from Janesville, Beloit, and Chicago came to a session in Beloit in early October. The inservice workshop introduced teachers to the program's objectives, its management system, its instructional sequence for the visual and sound skills, and assessment procedures. In addition, teachers were told what they could expect as participants in the field test.

Observations and Interviews. Among these expectations were 4-5 visits from Center staff at regular intervals. During these visits a lesson from the program was usually observed and the teachers were asked questions about each aspect of the program. In addition to general questions, such as the average time spent on program activities, the usability of the record cards, etc., the teachers were asked to make specific comments about each activity they had done since the last visit. This procedure permitted detailed information and suggestions to be gathered and used for program revisions. A Visitation Report, which includes a typical list of questions asked of teachers, can be found in the Appendix.

While their responses to direct questions provide valuable information about the pro-

gram, teachers often had ideas and suggestions between Center visits. To allow for the communication of this information teachers were asked to fill out "comment cards" on any and all activities that initiated reactions. These cards were collected during each visit. In addition, the revised version of the Letter Orientation, Word Detail and Sound Matching schedules sent out at mid-year included postcards for the teachers to complete and return to the Center. These cards kept Center personnel up to date on the progress of each teacher and invited comments on specific activities. Teachers were also asked to complete a questionnaire about pretesting after they finished preliminary activities. A copy of the questionnaire is printed in the Appendix. Finally, at the end of the year, the teacher's instructional schedules were collected so that any comments or notes made on them could be used by Center personnel for program revisions.

In addition to visiting schools, Center staff members consulted with a portion of the field test teachers at two Center meetings during the year. The first session was held in January. Five teachers were invited to discuss specific questions about each of the program's activities and materials used thus far. Four teachers attended a second session held in May to determine teacher reaction to the Sound Blending portion of the program and to obtain their responses to the revisions proposed for the 1972-73 version of the program.

The responses of the teacher and pupils to the Prereading Skills Program are of course an important consideration in judging the success of the program. The principal's perception of the program, however, also provides valuable information as to its usefulness and appropriateness for the children in a particular school. To determine their perceptions, each principal was interviewed twice during the school year. The first interview took place in early fall and consisted primarily of factual data related to pupil enrollment and standardized testing done in each building. The second interview was conducted at mid-year and primarily concerned the feedback principals received about the program from teachers. In most cases principals reported that teachers and children alike were very enthusiastic about the program and enjoyed its activities. They also reported that teachers liked having all the necessary materials provided for them. The principals themselves felt it was beneficial to both teachers and students that the five skills were defined and that they were sequentially presented. In addition, they remarked that using the Prereading Skills Program had made some teachers more oriented to teaching cognitive skills in kindergarten. Finally, they said that they saw the program as appropriate for most children in their schools, although the impact of Sesame Street and preschools makes it unnecessary for some chil[illegible] Copies of both interview forms can be found in the Appendix.

Testing. The perceptions of teachers and principals as to the usability and effectiveness of the program provided much of the formative evaluation information needed to revise the programs. The summative evaluation question of whether pupils mastered the five prereading skills was answered by testing the children with the Prereading Skills Test. Although the test itself was being validated at the same time, it was the only available means of measuring whether children acquired the five skills. Two different means of gathering results were used. Center personnel tested a sample of children from each school at different times during the school year. In addition, field test teachers tested varying proportions of their students at different points in the instructional sequence. These results were reported to the Center on the Posttesting Information Form (a copy of which is printed in the Appendix).

The Center-initiated testing began with a pretest of all five skills given to a sample of children from each school. This pretesting was done while the pupils were involved in large-group preliminary activities, prior to beginning instruction on the first visual and sound skills, Letter Order and Sound Matching. In March and April, some of these same children were pretested on the Letter Orientation and Word Detail skills to determine if these skills had been indirectly acquired during instruction on Letter Order. A new version of the Sound Blending test was also administered at this time. At the end of the school year the same children were posttested on all skills not previously mastered at some time during the year.

The number of times teachers used the sub-tests and the proportion of their pupils tested each time varied widely among the fourteen field test teachers. Three frequency groups can be differentiated: (1) teachers who used the test frequently (6-10 times during the year); (2) teachers who used it less often (3-5 times); (3) teachers who hardly used it at all (0-2 times). Six teachers comprise the first group of frequent users. Of those six, three teachers tested almost

all their pupils at each testing. The other three were more selective, choosing only a portion of their pupils to test each time. The second group (less frequent testers) also included six teachers, all of which tested most of their pupils each time they used the test. Two teachers made up the third group characterized as "hardly-ever" users of the test. The results from all Center and teacher testing are reported in Chapter III of this paper.

Baseline Data. As stated earlier, the Prereading Skills Program's terminal objective of reducing reading failure cannot be evaluated until the children who used this program in kindergarten have completed their second year in school. In preparation for this evaluation, however, baseline data were gathered on primary one children who had not used the Prereading Skills Program while in kindergarten. Primary one teachers in field test schools were interviewed to determine their grouping practices for reading instruction, and to identify the level at which each group was currently working. Subsequently, questionnaires were sent out during the 13th, 24th and 35th week of school, on which the primary one teachers were again asked to record the progress of each of these reading groups. Primary one teachers will be asked to complete the same series of questionnaires during the 1972-73 school year so that the progress of children who have used the Prereading Skills Program can be compared with the progress of those who had not had this instruction in kindergarten.

In addition to tracking the reading progress of second year pupils, a standardized achievement test was administered in late spring to all primary one children in the field test schools. The Gates-MacGinitie Reading Tests, Primary A (Form 2) was used to provide standardized baseline information with which to compare the performance of children who have not used the Prereading Skills Program with those who have. This test was administered in the spring of 1973 in order to complete this comparison.

In eight of the ten field test schools reading readiness tests were administered as a part of each school's testing program. The results were shared with the Center and will be used to compare the reading performance of children who have used the Prereading Skills Program and those who have not.

In summary, the field test design allowed for the collection of both formative and summative evaluation data. The formative data were used to revise the program's materials and implementation strategies, while the summative data assessed whether the program met its interim objective of having participating children master five prereading skills. Baseline information on primary one children was also gathered during this field test to assist in the evaluation of the program's terminal objective, the prevention of reading failure in the second year of school.

III
Analysis of Formal Assessment Data

The effectiveness of the Prereading Skills Program in terms of the achievement of the participating students may be assessed in two ways: (1) by measuring the incidence of reading failure among these students in the second year of school and (2) by evaluating their mastery of the five prereading skills.

Baseline data on reading failure in the first grade were gathered in May 1972 by administering the Gates-MacGinitie Reading Tests, Primary A (Form 2) in the field test schools. In May, 1973, the students who participated in the 71-72 field test of Prereading Skills Program were at a point where their reading achievement could be compared to the previous year's baseline. It is anticipated that the students who mastered the five prereading skills will be at or above the norm set by the baseline data on the Gates-MacGinitie Tests. A future technical report will contain the analysis of the comparative data.

Data pertaining to students' mastery of the five prereading skills were obtained from two sources: (1) Center personnel tested randomly selected students in each class at several points in the instructional sequence when information about the effect of instruction could best be obtained; (2) School personnel (teachers and aides) administered the test as a part of their implementation of the program. Because the data from these two sources were intended to serve different purposes, they are reported separately here. In addition, the reporting of the data is further separated to denote distinctions between the urban and non-urban schools.

Children's performance on the Prereading Skills Test may be analyzed from two perspectives: to measure the effectiveness of the program, and to validate the test as an appropriate assessment instrument for the program. The Sound Blending subtest was in fact modified twice during the field test.

The proportions of students who showed mastery of each of the five skills in the several testing periods conducted by Center personnel are shown in Table 2. Tests were administered prior to instruction in a skill (pretest) as well as following instruction (posttest). The first pretesting session occurred within eight weeks after the field test began and included all five subtests of the Prereading Skills Test. The second pretesting session was held at different times in each field test school, depending on when the classes reached the appropriate point in the instructional sequence. This testing was arranged to coincide with transition of instruction from one skill to the next. Because Letter Order and Sound Matching are the first skills taught, they were pretested only once. Letter Orientation, Word Detail, and Sound Blending were pretested twice. Posttesting sessions were arranged to follow the instruction in each skill. Word Detail, however, was not taught extensively enough to be posttested.

The first pretesting session, which included the subtests for all of the skills, was administered to a random sample of students from each of the field test schools. The data indicate a relatively low level of mastery, with no proportion exceeding the .18 attained for Sound Blending. This is the expected result, given the age of the students and the difficulty of the tasks, and the lack of specific instruction.

The second pretesting session followed instruction in Letter Order and preceded instruction in Letter Orientation, Word Detail and Sound Blending. It was conducted with samples of students which included those from the previous sample. Not all schools were included in the pretesting of Letter Orientation, because instruction in this skill had begun in some schools before pretesting was done. However, there was evidence of learning in both Letter Orientation and Word Detail; the mean mastery level of Letter Orientation

Table 2

Proportion of Students from Two School Settings
Who Showed Mastery of the Five Prereading Skills
on Tests Conducted by Center Personnel

Skill	Test Type	Testing Period	School Setting				N	Mean
			N	Urban	N	Non-Urban		
Letter Order	Pretest	10/1-11/15	48	.10	66	.12	114	.11
	Posttest	12/15-6/14	27	.53	114	.81	191	.76
Letter Orientation	Pretest	10/1-11/15	48	.10	66	.09	114	.09
	Pretest	3/15-5/15	17	.58	31	.64	48	.62
	Posttest	5/1-6/15	29	.62	40	.83	69	.75
Word Detail	Pretest	10/1-11/15	48	.08	66	.22	114	.16
	Pretest	3/15-6/15	64	.57	67	.71	131	.64
Sound Matching	Pretest	10/1-11/15	48	.14	66	.12	114	.13
	Posttest	3/15-6/15	44	.34	36	.33	80	.33
Sound Blending	Pretest	10/1-11/15	48	.16	66	.19	114	.18
	Pretest*	3/15-5/31	56	.00	75	.00	131	.00
	Posttest*	5/31-6/15	12	.00	11	.00	23	.00

*Revised version.

Table 3

Proportion of Students from Two School Settings
Who Showed Mastery of the Five Prereading Skills
on Tests Conducted by School Personnel

Skill	Test Type	Testing Period	School Setting				N	Mean
			N	Urban	N	Non-Urban		
Letter Order	Pretest	10/1-12/1	111	.04	343	.13	454	.11
	Posttest	12/15-6/14	93	.56	171	.79	264	.71
Letter Orientation	Pretest	10/1-12/1	47	.17	-	-	47	.17
	Pretest	1/1-5/1	91	.48	245	.73	336	.66
	Posttest	5/1-6/15	27	.74	46	.80	73	.78
Word Detail	Pretest	10/1-12/1	51	.17	-	-	51	.17
	Pretest	3/1-6/15	27	.85	86	.93	113	.91
Sound Matching	Pretest	10/1-12/1	103	.08	231	.26	334	.21
	Posttest	3/1-6/15	32	.84	114	.63	146	.67
Sound Blending	Pretest	10/1-12/1	46	.08	14	.85	60	.26
	Pretest*	3/1-5/15	11	.18	-	-	11	.18
	Posttest*	5/31-6/15	3	.33	17	.29	20	.30

*Shortened form of revised version.

and Word Detail increased to .62 and .64 respectively. The only instruction indirectly related to these two skills had been in Letter Order. The Sound Blending subtest was extensively revised for the second pretesting because, after the first pretesting, the original Sound Blending subtest had been judged not consistent with the instructional program.

The posttesting sessions were planned to follow the instruction in a given skill, and were therefore conducted only in those schools where instruction was completed. No teacher finished instruction in Word Detail, and several teachers did not finish instruction in other skills. The sample of students that had been tested earlier were retested. The data indicate moderate levels of mastery in the visual skills posttested and relatively low levels of mastery in the two sound skills.

Given the stage of development of the instructional and assessment materials, the test results indicate that the visual program materials are effective. Extensive revision was indicated for the Sound Matching skill materials. Because instruction in the Sound Blending skill was severely hampered by the press of time at the end of the school year, the posttest for this skill covered more material than had been covered by the instruction. The results obtained for the Sound Blending skill indicate, however, that the test and the instruction needed to be made more consistent.

The data obtained from the testing conducted by teachers and aides have been organized into the same time periods as those reported for the Center testing sessions. However, there is not complete comparability between the two sets of data. Some of the classes tested by teachers at a given time were not the same classes tested by Center personnel at that time. In some cases Center personnel tested where there was no school assessment, and conversely, there are data available on tests conducted by teachers at times when Center personnel were unable to test. Table 3 contains the proportions of students from urban and non-urban schools who showed mastery of the five skills in school-conducted testing.

In general, the teacher assessment data corroborate the findings reported for the Center testing sessions: there is a relatively low level of preinstruction mastery in the fall; preinstruction mastery of Letter Orientation and Word Detail increases after instruction in Letter Order; and Sound Blending is mastered at a lower level than the other skills. There are, however, some specific differences between the two sets of data: the teacher assessment data show mastery of Word Detail and Sound Matching at substantially higher levels than Center assessment data; Sound Blending was mastered at a remarkably high level by the fourteen students pretested in one non-urban school. The posttest data on Sound Blending are also more favorable in the teacher testing sessions. This result may stem from the fact that the form of the test used in the Center posttesting was not the same as the form used in the school posttesting. The schools had a shortened version of the test which had been prepared to be more consistent with the instructional activities.

In summary, the kindergarten students in the field test did not begin school with mastery of the five Prereading Skills. For the three visual skills and for Sound Matching, there is evidence of mastery levels substantially higher at the end of the year than at the beginning. These levels range from 83% for non-urban students on the Letter Orientation skill to 33% of all students on the Sound Matching skill. In addition, there is evidence that mastery of both Letter Orientation and Word Detail is enhanced by instruction in Letter Order. Few children were able to master Sound Blending by the end of the school year. Instruction in this skill had been cut short at the end of the year, however, and the Prereading Skills Test for Sound Blending needed modification. The mastery levels for the three visual skills indicate that the visual program materials were effective. The mastery levels for the two sound skills indicate that the sound program materials needed further development in order to meet the objectives of the Prereading Skills Program.

IV
The Instructional Program

The most significant outcome of the 1971-72 field test was the confirmation that an individualized program to teach prereading skills could successfully be implemented by kindergarten teachers. The overall design of the Prereading Skills Program was therefore retained in 1972-73. In this design the program has two components: an instructional program and a diagnostic test. The sequence of activities in the instructional program is presented in two independent schedules, one for the visual skills and one for the sound skills. Each activity listed in the schedules is keyed to a card in the Teacher's Resource File which gives instructions for that activity. The Prereading Skills Test, comprised of a subtest for each skill, is used to evaluate children's mastery of each skill. To keep track of each child's needs and achievements, there is a management system using edge-notch cards.

Data gathered by observation of the teachers who participated in the 1971-72 field test, and by consultation with them guided the revision and refinement of the program. The sequence of instructional activities had to be substantially revised to make it possible for an average kindergarten class to finish all the activities within a year and to ensure that every child in a class would have experience working on each of the five prereading skills that he needed to learn. More information was needed on how to use the management system, especially on how to group children on the basis of the test results. The activity descriptions in the Resource File had to be more explicit, and the guidelines for assessing children's performance had to be made more consistent. In addition, the subtests of the Prereading Skills Test had to be revised to be fully compatible with the instructional materials.

The purpose of this chapter is to document these and other revisions of the Prereading Skills Program.

Visual Program

Schedule. The revised sequence of visual activities begins with Preliminary activities. These activities introduce a limited concept of same/different and give children beginning practice in applying same/different judgments to letters. All of these are large group activities, because at the start of the school year, it is difficult to organize kindergarten children into small groups for instruction. After Preliminaries, the children begin instruction in Letter Order. The skill is first introduced to a large group and then the children do small group activities, using two-letter strings (level 1).

In the next section of the Schedule, Letter Orientation is introduced and the children do small group Orientation activities. They complete the level 1 activities, which use the dissimilar orientation letters s-z, n-u, m-w, and they do some level 2 activities, using the reversible letters b, d, p, q. It is estimated that if the Prereading Skills Program is begun at the start of school, it will take approximately until January to complete this much of the Visual Program. After this point, the teacher is directed to give the Prereading Skills Test for Letter Order and Letter Orientation and then to group children according to their need to work on Letter Order (level 2), Letter Orientation (level 2) or Word Detail (levels 1 and 2). After additional instruction, children are regrouped according to their need to work on either Letter Orientation or Word Detail. Finally, all the children who have not yet mastered Word Detail are grouped to work on that skill. At the same time, children who have mastered Word Detail, but not Letter Order

or Letter Orientation, continue to do activities to learn those skills. This sequence requires that at specified points in the Schedule, a child begin to work on another skill even though he may not have mastered the one on which he has been working. Every child will therefore participate in activities for all the visual skills that he needs to learn. The revised sequence of visual activities is summarized in the flow chart on page 15 (Figure 1). A similar chart of the 1971-72 field test sequence appears in Figure 2, and is included for comparison.

The 1971-72 version of the Visual Schedule also began with Preliminary activities. After Preliminaries, the activities for each of the three visual skills were presented in three self-contained units, which followed each other sequentially. This sequence implied that a child had to complete all of the Letter Order activities successfully before he could do the introductory activities for Letter Orientation and that he had to master both Letter Order and Letter Orientation before he could begin to work on Word Detail. As a result, in many classes children who had difficulty with Letter Order worked on Order activities for most of the school year, and never did activities for Letter Orientation and Word Detail. Another disadvantage to the sequential presentation of skills was that in order to have groups of children working on different skills, a teacher had to refer to several sections of the schedule. Preparing lesson plans in this manner was so cumbersome that few teachers attempted to divide the children into skill groups.

In the 1971-72 Visual Program, there were activities which included material that was more difficult than the items on the Prereading Skills Test. These level 3 activities were provided for children who demonstrated mastery of a skill. In the revised program, level 3 materials have been eliminated, and children who have mastered a skill need not continue doing instructional activities for that skill. As children master all three visual skills, they no longer need to participate in visual skills activities. The teacher can then devote Prereading Skills activity periods to children who have not yet mastered these skills.

Large group activities. Each of the visual skills is first introduced in large group exercises, which include manipulative games, flannel board and pocket chart exercises, and chalkboard exercises. Classroom observations early in the 1971-72 school year indicated that the introductory lessons for Letter Order were insufficient. In anticipation of a similar problem with the large group activities for Letter Orientation and Word Detail, these activities were expanded and rewritten, and the revised activity descriptions were sent to the teachers as part of the 1971-72 field test. These new activities, with more explicit activity descriptions, proved effective and required only minor changes in 1972-73. The large group activities for Letter Order were significantly revised for 1972-73.

Small group games. Although skills are introduced to the children in large group presentations, the core of the instructional program consists of games for small groups arranged according to individual needs. There are a limited number of game formats, so that once the children have learned the rules for a game, they can play it with sets of materials that differ in content in order to acquire the different visual skills.

Several small group games that were used in 1971-72 had successful formats, but the materials were revised to incorporate real words rather than meaningless letter strings. Other games proved unsatisfactory. For some of them the rules were revised; others were eliminated and new games were developed to replace them. In addition, Extra Help Games were designed to be played by children who have had difficulty with the format or the content of other small group games. The Extra Help Games include simplified content or special materials such as transparent overlays.

The rules for Dominoes were changed in the 1972-73 materials, so that instead of two children playing together with a set of 16 dominoes, a child plays independently with a set of 8 dominoes. It was found in 1971-72, that the large sets were hard for the children to manage and that teachers had difficulty assessing each child's work. In 1972-73, a suggestion to let two children play together using two sets (16 dominoes) is included as a variation of the game.

The Spinner Game was dropped from the program for several reasons. First, teachers found it difficult and time consuming to assess children's performance on this game. Second, some children in each small group had to look at the letters on the spinner board upside-down. Third, spinning and waiting for the spinner to stop took so much time, that children became impatient. Finally, the game was expensive to produce and cumbersome to package.

The card game Fish was scheduled to be introduced in the 71-72 field test as an activity for Word Detail. Early feedback from teachers on the format of the games already

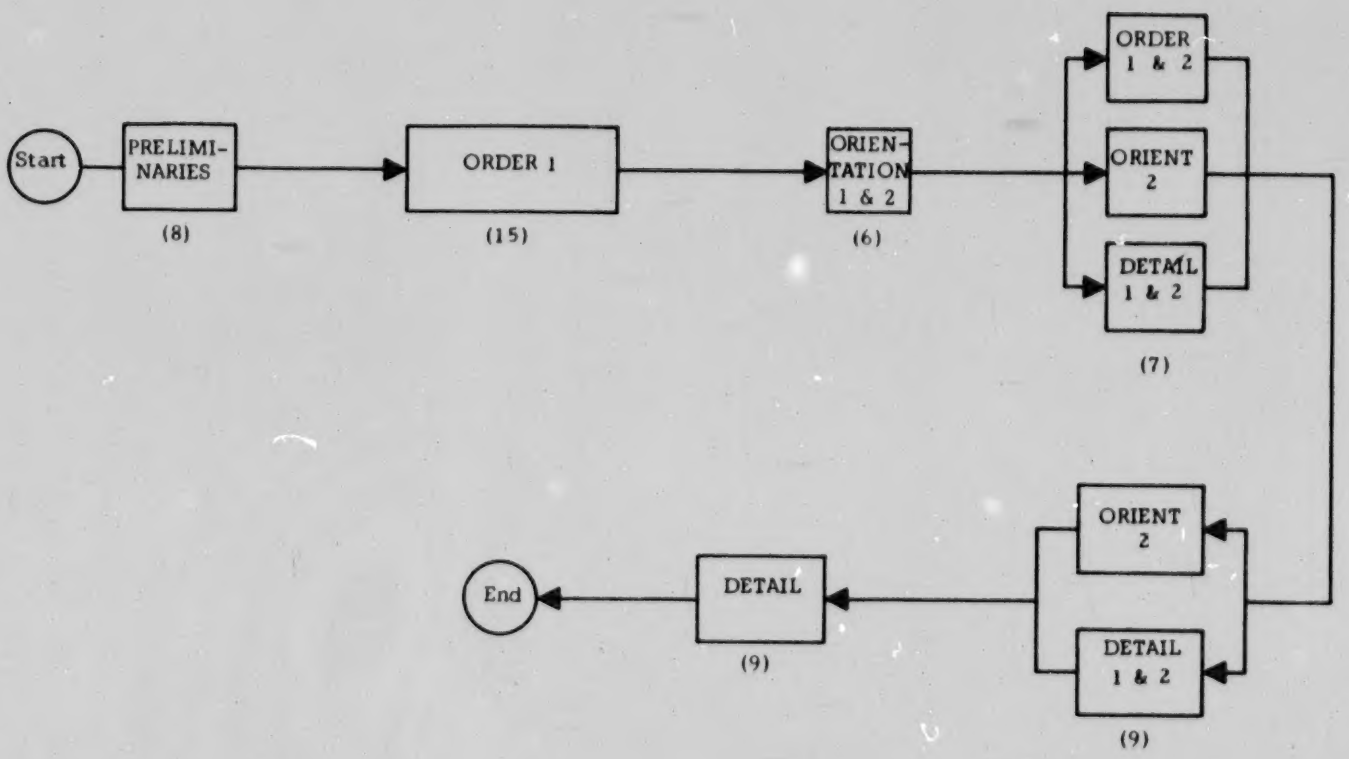

Fig. 1 Instructional Sequence of Visual Skills Activities, 1972-73.
The relative size of the boxes reflects the amount of time allocated to each series of activities.
The number of activity periods is indicated below each box.

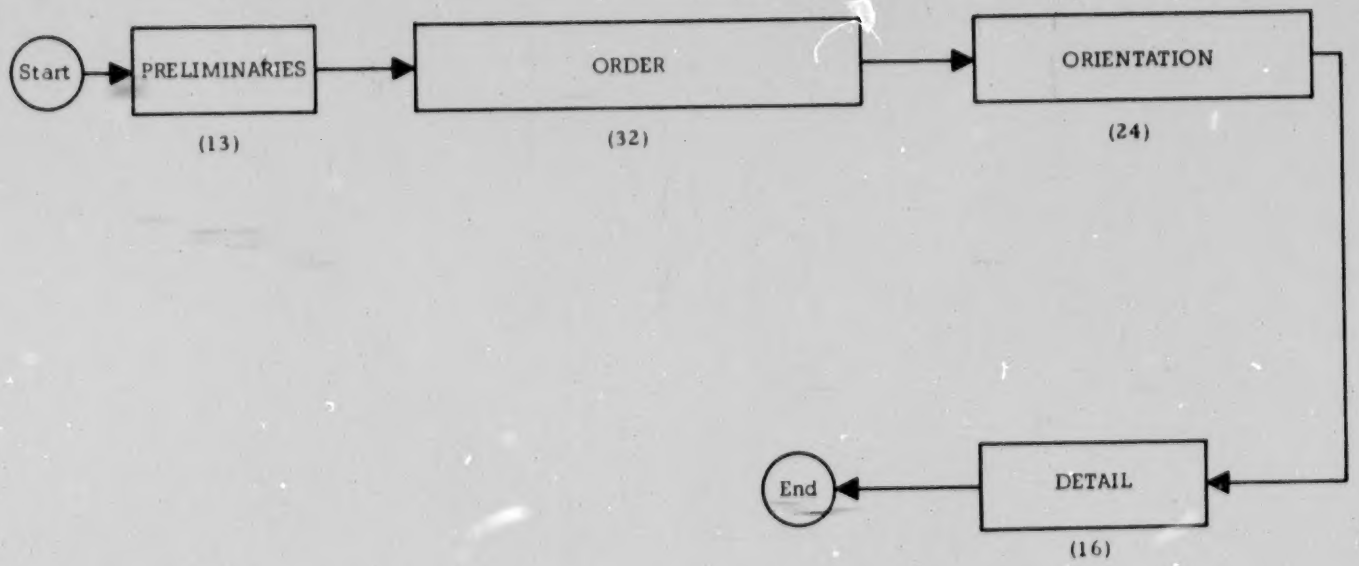

Fig. 2 Instructional Sequence of Visual Skills Activities, 1971-72.
The relative size of the boxes reflects the amount of time allocated to each series of activities.
The number of activity periods is indicated below each box.

introduced indicated that the format of Fish would be unsatisfactory because it would be difficult to assess children's performance. New game formats were therefore developed and sent to the teachers as part of the field test materials for Word Detail. These games—Find a Pair and Word Twins—proved successful. In the 72-73 version of the program these game formats are used to teach Letter Order and Letter Orientation as well as Word Detail.

Take-home games. The first take-home game in the program, the Train Game, was included in the 71-72 Word Detail activities. The child makes his own game from a kit, and after he has played it in school, he may take it home. This game proved so popular with children, teachers, and parents that two versions of it are included in 72-73, one for Letter Order and one for Letter Orientation. In addition, other take-home games were developed and added to the program.

Practice sheets. The learning experience of small group games is supplemented by practice sheets which the children may either do independently or in a group with each child marking his own practice sheet. Practice sheets are often introduced by class charts which are poster-sized variations of the practice sheets that the group does together. When no class chart is provided, the practice sheets are introduced by a chalkboard exercise. In 72-73 the number of practice sheets was substantially reduced and several class charts were added. In response to teachers' comments, the letters on the earlier practice sheets were made larger so that children can compare letter strings by pointing to each letter with their finger. Also the number of items on the earlier practice sheets was reduced. Only two practice sheet formats are used throughout the program, because the use of several formats did not prove worthwhile in 71-72.

Teaching of each visual skill. A chart listing the activities used to teach each visual skill in 1971-72, and those used in 72-73 73 follows. Activities listed next to each other are generally the same and have the same objectives. Although in some cases, the title of the activity was changed or new materials were added. In 72-73, activity titles are catchier and more descriptive than in 71-72. A blank in the 71-72 column indicates that a new activity was added in 72-73; a blank in the 72-73 column indicates that an activity was deleted and not replaced by an equivalent activity.

Sound Program

Schedule. The revised sound program begins with preliminary activities, which include learning the first four Sound Picture Associations and doing large group listening activities. As in the Visual Program, all of the preliminary activities are for a large group, because at the start of the school year, it is difficult to organize kindergarten children into small groups for instruction.

Sound Matching in Beginning Position, which is listening for initial sounds in words, is introduced in conjunction with the second set of four Sound Pictures. The children continue practicing Beginning Position Sound Matching as they learn eight additional Sound Picture associations. Then the first Letter-Sound Correspondences are introduced, and the children continue to practice Beginning Position Sound Matching, only now there are letters instead of Sound Pictures to represent the sounds. In the next section of the schedule, Sound Matching in Last Position is introduced, and the children do activities to learn Last Position Sound Matching, first using Sound Pictures and then letters to represent the sounds. At the same time, the children continue learning new Sound Picture Associations as well as additional Letter-Sound Correspondences. In the next short section of the schedule, the Sound Matching activities review Beginning Position and then contrast Beginning with Last Position. This portion of the program, from Preliminaries through Contrasting, takes approximately until the end of March. At this time the Blending activities begin. The Blending activities emphasize oral blending and blending using letters to represent the sounds. While they are practicing Blending, the children learn additional Letter-Sound Correspondences, bringing the total number up to twelve.

The revised sequence of Sound activities is summarized in the flow chart (Figure 3). A similar chart of the 1971-72 field test sequence appears in Figure 4 and is included for comparison.

The major revision in the Sound Schedule was to introduce Beginning Position Sound Matching activities earlier and to provide more time to teach them. In the 71-72 program, Sound Matching was not introduced until after the children had learned eight Sound Picture associations. In 71-72, Letter-Sound correspondences were first introduced at the start of Blending, giving children much less time to learn the letters than they had had to learn the Sound Pictures. Introducing the letters during Beginning Position Sound Matching corrects this imbalance and ensures

VISUAL PRELIMINARIES

Type of Activity	1971-72	1972-73	Summary of Changes
Large group	Are They the Same? 1. Objects: names 2. Objects: size, color, shape 3. Pictures: size, color, shape 4. Letters Pointing Game Drawing Activity Remember?	Matching Faces The Matching Game: Faces Matching Shapes The Matching Game: Shapes Move It to Prove It: Shapes Letters are Special Shapes Move It to Prove It: Letters Remember	Materials for the introduction of the same/different concept are drawings of faces and shapes, instead of objects and pictures. New lessons were added to introduce the concept of reading and to emphasize that letters can be arranged to form words and sentences.
Small group games	All of the preliminary lessons are large group activities.		
Practice sheets and class charts	5 Practice Sheets 2 Class Charts	2 Practice Sheets 2 Class Charts	There are fewer practice sheets and more class charts. Practice sheets with pictures were eliminated.

LETTER ORDER

Type of Activity	1971-72	1972-73	Summary of Changes
Large group	Object Visual Matching Game Object Visual Memory Game Visual Matching Activity: Order	The Pointing Game Object Matching Game: Order Touch-In-Order Object Memory Game Flannelboard: Ordered Shapes Find A Pair: Shapes Flannelboard: Ordered Shapes and Letters Chalkboard: Letter Pairs Names are Made of Ordered Letters Chalkboard Practice	In 71-72 the introductory lessons for Order were inadequate. In 72-73 new activities are added which use flannelboard shapes and letters, as well as classroom objects to illustrate the meaning of ordered sets. Ordered pictures are no longer used for this purpose.
Small group games	Letter Lotto: Order 1, 2, 3 Dominoes: Order 1, 2 Battle: Order 1, 2 Spinner Game: Order 1, 2, 3 Patience: Order 1, 2, 3	Letter Lotto: Order 1, 2 Dominoes: Order 1 Same/Different: Order 2 Find A Pair: Order 1 Word Twins: Order 2 See-Through Lotto (Extra Help) Find A Pair: Shapes (Extra Help)	The number of game formats is unchanged (5), but there are half as many variations at different levels, primarily because level 3 was dropped. The items on the games are real words rather than nonsense letter strings. Extra Help games are added.
Take-home games		Train Game: Order 1 Take-Home Word Twins	The Train Game which was tried out with Word Detail materials in 1971-72 proved successful. As a result, take-home games are used in 72-73 to teach Letter Order.
Practice sheets and class charts	10 Practice Sheets 2 Class Charts	6 Practice Sheets 2 Class Charts 2 Extra Help Practice Sheets	There are fewer practice sheets and more class charts. Extra Help practice sheets are added.

LETTER ORIENTATION

Type of Activity	1971-72	1972-73	Summary of Changes
Large group	Orientation Memory Game Same/Different Direction Game Are They the Same Direction? Letters Are Special Does It Match: Part I Part II Part III Flannelboard Exercise Draw A Line	Same/Different Direction Game Are They the Same Direction: Some Letters Are Funny Does It Match? Move It to Prove It: Orientation Patience Draw A Line	Activities using pictures to introduce Orientation were eliminated in 1972-73.
Small group games	Letter Lotto: Orient 1, 2, 3 Dominoes: Orient 2, 3 Battle: Orient 1, 2 Spinner Game: Orient 2, 3 Patience: Orient 1, 2, 3	Letter Lotto: Orient 1, 2 Dominoes: Orient 2 Same/Different: Orient 2 Patience: Orient 2 See-Through Lotto (Extra Help)	Four game formats are used rather than five. Level 3 games are dropped. Most level 1 games are eliminated because they were too long. An Extra Help game is added.
Take-home games		Train Game: Orientation 1	The Train Game, which was tried out successfully with Word Detail materials in 71-72, is used to teach Orientation in 72-73.
Practice sheets and class charts	6 Practice Sheets 6 Extra Help Practice Sheets 2 Class Charts	4 Practice Sheets 1 Extra Help Practice Sheet 2 Class Charts	There are fewer practice sheets.

WORD DETAIL

Type of Activity	1971-72	1972-73	Summary of Changes
Large Group	Flannelboard Exercise Draw A Line Word Detail Memory Game	Flannelboard: Detail Draw A Line Word Detail Memory Game	In 72-73 examples use chiefly 4-letter words (Detail 2) rather than 3-letter words (Detail 1).
Small group games	Find A Pair: Detail 1, 2 Same Game: Detail 1, 2, 3 Patience: Detail 1 Find A Pair: Extra Help	Find A Pair: Details 1, 2 Word Twins: Detail 1, 2 Letter Lotto: Detail 2	The number of game formats is the same, and except for the deletion of level 3, the number of variations is also the same. All of the items on the games are real words. The Extra Help Game was deleted.
Take-home games	Train Game: Detail 1, 2		Take-home games are not used, since in the 72-73 program, children work on Detail at different times.
Practice sheets and class charts	5 Practice Sheets 4 Extra Help Practice Sheets 1 Class Chart 2 Review Practice Sheets (Detail with Order and Orientation)	3 Practice Sheets 1 Extra Help Practice Sheet 1 Class Chart 1 Review Practice Sheet (Detail with Order and Orientation)	There are fewer practice sheets.

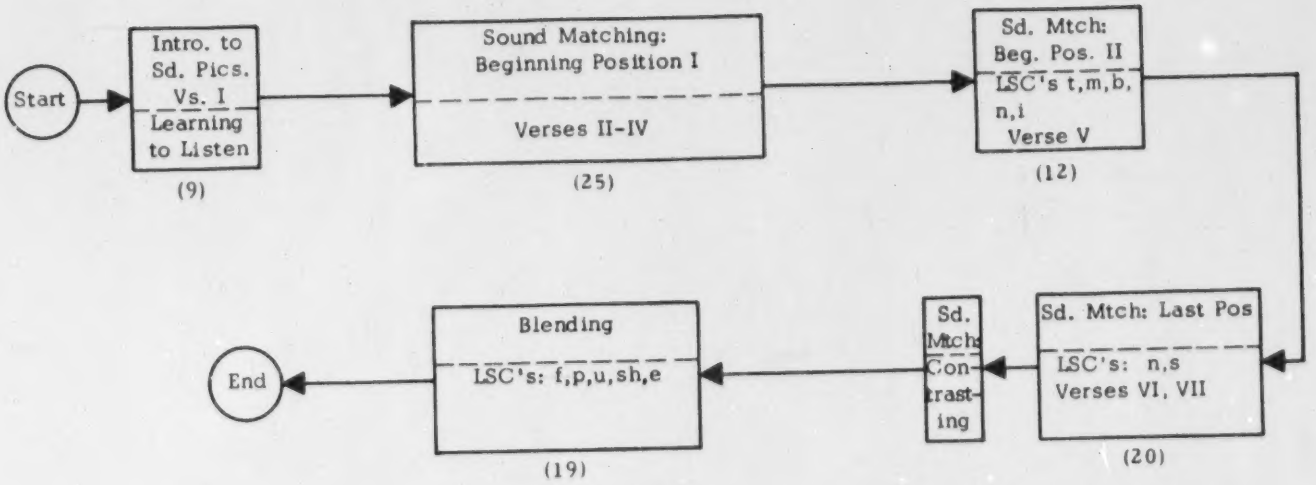

Fig. 3 Instructional Sequence of Sound Skills Activities, 1972-73.
The relative size of the boxes reflects the amount of time allocated to each series of activities. The number of activity periods is indicated below each box. Compare with the similar chart for the previous year (below).

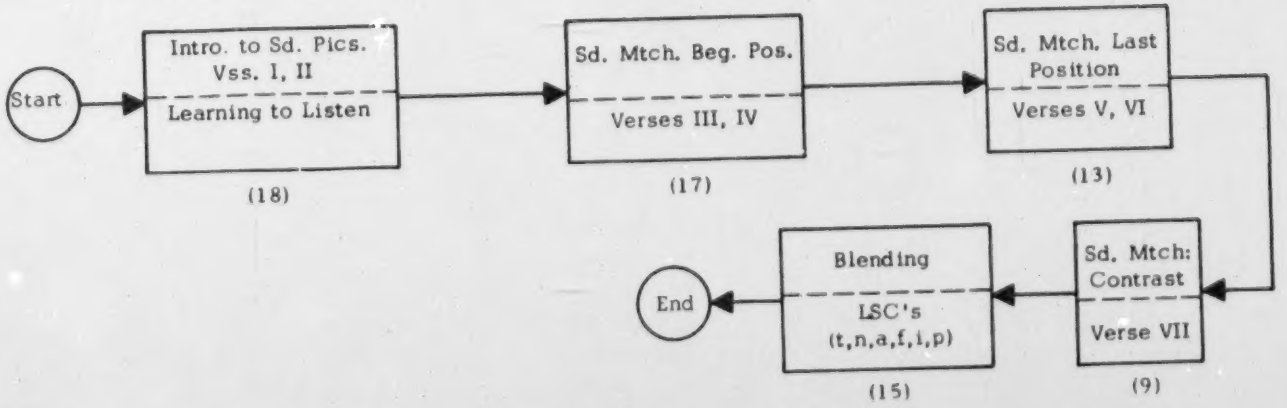

Fig. 4. Instructional Sequence of Sound Skills Activities, 1971-72.
The relative size of the boxes reflects the amount of time allocated to each series of activities. The number of activity periods is indicated below each box.

Table 4

Changes in Sound Picture Associations

Sound	1971-72 association	1972-73 association	Reason for change
ē	lady standing on chair scared of mouse	lady falling down after slipping in puddle of soapsuds	consultant pointed out that lady frightened of mouse had sexist connotations
d	air hammer	dripping water	rural children were unfamiliar with air hammer
n	mosquito near a boy's ear	robot (noise of motor)	children had difficulty associating sound with mosquito and confused it with the Sound Picture Association of *z* with a bee
ū	ghost	owl	children tended to say "boo" rather than ū for ghost
z	bee	fly	children said "buzz" rather than "*z*" for bee
a	girl tasting medicine	girl tasting soapsuds	undesirable to teach children that it is unpleasant to take medicine

that the letters will be familiar to the children by the time they appear as stimuli in blending activities. Earlier introduction of the letters also provides opportunities for additional reinforcement of Beginning Position Sound Matching. In 71-72 teachers felt that children who had difficulty understanding Beginning Sound Matching were given too little time to practice it before Last Position was introduced. The high proportion of nonmastery on the Sound Matching subtest of the Prereading Skills Test, reported in Chapter III of this report, confirmed their impression.

Sound Picture Associations. In 72-73, as in 71-72, there are 28 Sound Pictures used to familiarize the children with sounds as a basis for understanding and practicing sound matching. The 28 sounds are the same in 72-73 as in 71-72. However, they are presented in a different order, and for six sounds, the picture associations have been changed (see Table 4).

The sequencing of the sounds was revised so that the sounds introduced earliest in the program are those which are most productive for Beginning Position Sound Matching activities. In 71-72 the sounds were ordered so that the sounds introduced earliest were those children could pronounce most easily, as reported in experimental studies of articulation and phonic blending. The field test showed, however, that children's ability to learn the Sound Picture associations does not reflect the experimentally-based rankings of the sounds according to difficulty. The availability of picturable words for sound matching games was therefore given primary consideration in deciding the order in which to introduce the sounds.

The new ordering of the sounds yielded new groupings of four sounds to be introduced together in a Sound Picture Story and a verse of the Sound Song. To accommodate these new groupings, new Sound Picture Stories were written for 72-73. These new narratives are more descriptive and longer than the original ones and provide richer language experience.

The 1971-72 Sound Program had originally

included the introduction of 32 Sound Picture associations. From classroom observations midway through the school year, it became apparent that classes would not finish all of the activities in the Sound Schedule during the year. The Schedule was therefore rewritten at that time, and teachers were sent a new Schedule as part of the 1971-72 field test. In this version of the Sound Schedule, the eighth Sound Picture Story had been dropped, which reduced the number of Sound Picture Associations from 32 to 28. The four sounds which were eliminated by this change were *ing, ā, ėr, ŭ.*

Large group activities. Like the visual skills, the sound skills are first introduced in large group exercises. These activities include oral sound matching games using pictures to represent words, as well as the activities which introduce Sound Pictures and letters. New activities were developed for 72-73 to provide additional practice in Sound Matching.

Small group games. There are two basic formats for Sound Matching games: either the child sorts pictures according to their initial (or final) sounds, or he picks a card representing a sound and searches among several pictures for one that has the selected sound in initial (or final) position. As in the visual program, some of the small group sound games tried in 71-72 proved unsatisfactory and were either replaced or modified.

Three small group Sound Matching games, Triple Choice, Look and Listen, and Auction, proved unsatisfactory because they required close adult supervision. Triple Choice was retained in 73-74 as a large group activity only. Sound Lotto and the Picture Game were developed to replace Look and Listen. The Sound Matching task in the new games is the same as in Look and Listen, but the format is such that children can play without adult supervision.

The game Sound Sort was expanded to two levels of difficulty: Two-Way Sort, where the children judge which of two sounds is the first (or last) sound in a word, and Three-Way Sort, where they make similar judgments among three sounds. In 71-72 the program included only Two-Way Sort, but in the 72-73 program, the two-sound variation is used only as an Extra Help game for children who have difficulty playing Three-Way Sort. The format of the game was revised so that children stack their picture cards on a board rather than sorting them into loose piles. All the Two-Way Sort games and some of the Three-Way Sort games are self-correcting, which in 71-72 was a feature of the Look and Listen cards. The House Game is another new sound sorting game, a variation of Three-Way Sort in which letters rather than Sound Pictures represent the three sounds.

The Word Matching Card Game was added in 1972-73 to give children practice in judging whether or not two words begin with the same sound. This aspect of Sound Matching is emphasized more in the 72-73 Schedule than it was in 71-72.

Because the visual Spinner Game was eliminated, the game Sound Spinner was also dropped. This game had been used to reinforce Sound Picture Associations; it was deleted because there are many other good activities which accomplish the same purpose and which do not require special materials.

Take-home games. In the 72-73 Sound Program, as in 71-72, the children receive small copies of the Sound Picture Cards and Letter-Sound Cards to keep. To make these materials more productive, sample letters are provided in the 72-73 program for teachers to duplicate and send with each child when he takes his Sound Picture Cards or Letter-Sound Cards home. These letters suggest sound matching games, using the cards that parents can play with their children. A take-home Sort game was tried in 71-72 during the Blending unit. It proved successful and it is used earlier in the 72-73 Sound Program. A take-home Word Matching game was also developed and added to the program in 72-73.

Practice Sheets. Of the five formats for Sound Practice Sheets tried out in 1971-72, three are used in 1972-73. Practice Sheets are also used earlier in the 1972-73 sound program, and the number of sheets is increased from six to seven.

Teaching the Sound Skills. Charts listing the activities used to teach the sound skills in 72-73 and showing how they compare with those used in 1971-72 appear on the following pages. As in the charts for the visual skills, activities listed next to each other are generally the same and have the same objective, although in some cases, the title of the activity was changed or new materials were added. As for the visual activities, titles for the sound activities are catchier and more descriptive in 72-73 than in 71-72. A blank in the 1971-72 column indicates that a new activity was added in 72-73; a blank in the 72-73 column indicates that an activity was deleted and not replaced by an equivalent activity.

SOUND PRELIMINARIES

Type of Activity	1971-72	1972-73	Summary of Changes
Large group	<u>Introduction of Sound Pictures</u> Introduction of first four sounds individually Reinforcement of first four sounds individually Sound Picture Story I The Sound Song, verse I Introduction of next four sounds individually Sound Picture Story II The Sound Song, verse II	<u>Introduction of Sound Pictures</u> Introduction of first four sounds individually Reinforcement of first four sounds individually Sound Picture Story I The Sound Song, verse I	The individual introductions of the next four sounds are done in conjunction with Sound Matching instead of in Preliminaries
	<u>Learning to Listen</u> 1. Who is knocking? 2. What Makes This Sound? 3. (optional) What Did He Do? 4. How Did He Move? 5. Noise Matching Rattles (6 sets)	<u>Learning to Listen</u> 1. What Makes This Sound? 2. Jump, Run, and Hop 3. The Drum Says 4. Sound Matching Rattles (3 sets)	Learning to Listen activities are scheduled earlier than in 71-72. They are done in conjunction with the first set of 4 Sound Pictures rather than with the second set of 4 Sound Pictures.
		Extra Help: Learning to Listen	Extra Help listening activities are added.
Small group games	All of the preliminary lessons are large group activities		
Take-home games	Sound Picture Testing	<u>Earning Sound Picture Cards</u> Say The Sound Take-Home Musical Cards Sound Picture Parade	Children are checked in a large group rather than individually to see whether they have learned Sound Picture Associations.
Practice sheets and class charts	There are no Practice Sheets in Sound Preliminaries.		

SOUND PICTURE ACTIVITIES INCLUDED IN THE SOUND PROGRAM AFTER PRELIMINARIES

Type of group	1971-72	1972-73	Summary of Changes
Large group activities	Introduction of Sound Picture Stories and the Sound Song: verses III-VII <u>Reinforcement of Sound Picture Associations</u> Choice of activities: Musical Cards, Fish Game, Magic Card Game, Animal Charades	Introduction of Sound Picture Stories and the Sound Song: verses II-VII <u>Reinforcement of Sound Picture Associations</u> Choice of activities: Magic Hat, Old MacDonald, Fishing Game, Skip and Stoop, Sound-off, Spin-Around, Stepping Stones	There is a wider variety of large group games to reinforce Sound Picture Associations. (The teacher received an extra set of Sound Pictures for bulletin board display.)
Small group games	Sound Picture Drill Pairs Sound Picture Spinner	<u>Extra Help: Sound Picture Associations</u> Choice of activities: Practice Pairs, Spinner, Tape and Earphones	Small group games are included only for extra help. A cassette recording is provided which includes the Sound Song and self-instructional practice of the Sound Picture Associations.
Take-home games	Sound Picture Testing	<u>Earning Sound Picture Cards</u> Say the Sound, Take-home Musical Cards, Sound Picture Parade	Children are checked in a large group rather than individually to see whether they have learned Sound Picture Associations.
Practice sheets and class charts	This type of activity is not used for Sound Picture learning.		

LETTER-SOUND CORRESPONDENCES

In 1971-72, all of the Letter-Sound activities shown here were scheduled in conjunction with the Sound Blending activities. In 1972-73 they appear earlier in the program, in conjunction with Beginning Position Sound Matching activities and Last Position Sound Matching activities as well as with Blending activities.

Type of activity	1971-72	1972-73	Summary of Changes
Large group	Letters introduced a n i p f t	Letters introduced a n b s i t e sh f p m u	Twice as many letters are introduced in 72-73.
	Introduction of a Letter & Supplementary Activities	Introduction of a Letter & Supplementary Activities	
	Musical Cards	Reinforcement of Letter-Sound Correspondences Choice of activities: Fishing Game, Skip and Stoop, Sound-Off, Spin-Around, Stepping Stones	A greater variety of activities is provided to reinforce letter-sound learning.
	Different Ways	Different Ways	
	Disappearing Letters	Disappearing Letters	
	Across the Row	Across the Row	
	Where Is It Hiding?	Where Is It Hiding?	
	Letter-Sound Line-up		
Small group games	Across the Row, Fish Game, Magic Card Game, Drill Pairs — optional to substitute for large group activity	Across the Row (optional) Practice Pairs (Extra Help)	Small group games are not scheduled except on Extra Help Days.
Take-home games		Checking Letter-Sound Correspondences	In 72-73 children are checked on their knowledge of letter sounds before they take home copies of the Letter-Sound Cards.
Practice sheets and class charts	Practice Sheets and Class Charts using letters to represent sounds are listed in the chart of Sound Matching activities.		

SOUND MATCHING: BEGINNING POSITION

In 1972-73, activities which teach Beginning Position Sound Matching appear in two units of the Sound Program. In Beginning Position I, sounds are represented by Sound Pictures; in Beginning Position II, sounds are represented by letters. The activities in both these units are shown on this chart.

Type of group	1971-72	1972-73	Summary of Changes
Large group activities		Sound Matching Activities done in conjunction with the introduction of the second set of four Sound Pictures individually	Sound Matching is introduced earlier.
	Introduction to Sound Matching, Part I	Two-Way Sort	
	Hot Potato	Two-Way Sort: Hot Potato	
	Introduction to Sound Matching, Part II	Two-Way Sort: Which Train?	
	Triple Choice	Triple Choice	
	Sound Gym: Sound		
	Going on a Visit: Word Matching	Oral Word Matching	
		Guess the Picture Oral Sound Sort	New activities provide additional practice in Sound Matching on days when children play small group games.
	<u>Sound Matching Games With Letters</u>	<u>Sound Matching Games With Letters</u>	There are more Sound Matching activities using letters to represent sounds.
	Sound Gym: Sound Word	Climb the Ladder Beanbag Toss Word Store	

SOUND MATCHING: BEGINNING POSITION (continued)

Type of Group	1971-72	1972-73	Summary of Changes
Small group games	With Sound Pictures Sort (3 variations) Triple Choice* Look & Listen* Auction (Extra Help)* *All played using the same materials, of which there are three variations, all self-correcting.	With Sound Pictures Three-Way Sort (2 variations, of which 1 self-correcting) Sound Lotto (2 variations) Word Matching Card Game (2 variations) Two-Way Sort (Extra Help, 2 variations, both self-correcting) With Letters The House Game (1 variation) Sound Lotto (1 variation)	Small group sound matching games with letters are added.
Take-home games	Take-Home Sort Game (with letters)	Take-Home Sort Game (with letters)	This take-home game was tried out during the Blending unit in 71-72 and is used earlier in 72-73.
Practice sheets and class charts	2 Sound Assessment Sheets (supplementary for children doing well) 2 Sound Practice Sheets using letters 1 Sound Practice Sheet for Word Matching	2 Sound Practice Sheets with Sound Pictures 1 Sound Practice Sheet using letters 1 Sound Practice Sheet for Word Matching	These activities were not a practical means of assessment. Sound Practice Sheets tried out during the Sound Blending unit in 71-72 proved a successful means of instruction. They are introduced earlier in 72-73.

SOUND MATCHING: LAST POSITION

Type of Activity	1971-72	1972-73	Summary of Changes
Large group activities	Introduction to Last Position I & Sort Introduction to Last Position II & Triple Choice Triple Choice Sound Gym: Sound-Word Oral Sound Match Sound Matching Position Book (with Sound Pictures)	Introduction to Last Position I & Two-Way Sort Introduction to Last Position II & Triple Choice Sound Matching with Letters Vanishing Letters Sound Matching Book (with Sound Pictures & letters)	Fewer large group activities are used. At the same time as the children are introduced to Last Position Sound Matching, they are learning additional Letter-Sound Correspondences. New activities using letters replace some of the 71-72 Last Position Sound Matching activities using Sound Pictures.
Small group games	With Sound Pictures Sort (2 variations) Look & Listen* Auction (Extra Help)* *Played using the same materials: 2 variations, both self-correcting.	With Sound Pictures Three-Way Sort (1 variation, self-correcting) Picture Game (2 variations) Two-Way Sort (Extra Help, 1 variation, self-correcting) With Letters Picture Game (1 variation)	The 72-73 last position materials include a game that was not used for beginning position. Also, the materials for each game are unique to that game. After the children play last position games using Sound Pictures, they practice last position using letters.
Take-home games	There are no take-home games in this unit.		
Practice sheets and class charts	1 Sound Assessment Sheet (supplemental for children doing well) 1 Sound Practice Sheet (with Sound Pictures)	1 Sound Practice Sheet (with Sound Pictures) 1 Class Chart (with Sound Pictures)	This activity did not prove a practical means of assessment. A Class Chart was added.

CONTRASTING BEGINNING & LAST POSITION SOUND MATCHING
1972-73

Type of Activity	1971-72	1972-73	Summary of Changes
Large group activities	Triple Choice, Beginning Position Oral Sound Match, Beginning Position Sound Matching Position Book (Sound Pictures) Triple Choice, Last Position	Sound Matching Book (Sound Pictures & Letters) Starting Sound/Last Sound (4 variations)	This unit is half as long in 72-73 as in 71-72. Games which review only Beginning or Last Position were eliminated, so that the unit includes only activities in which children must contrast sounds in beginning and last position in the same words. In 72-73 letters as well as Sound Pictures are used to represent sounds.
Small group games	"Starting Sound or Last Sound?" (5 variations) Look & Listen (1 Beginning Position variation, 1 Last Position variation)	Starting Sound/Last Sound (optional to have children play; 4 variations)	There are fewer small group games, and they are optional.
Take-home games		Take-Home Word Matching	A take-home game was added to reinforce Word Matching.
Practice sheets and class charts	2 Sound Practice Sheets		Practice Sheets are not included for Contrasting in 72-73.

BLENDING

Type of Activity	1971-72	1972-73	Summary of Changes
Large group activities		Blend and Touch	There are more oral blending exercises.
	Guess the Name	Guess the Name	
	Blend the Word Pictures Letters	Blending Book Pictures Letters	
	Introduction of the word *ant*	Introduction of the word *fan*	
		Sound Spelling with *an*	
	Introduction of a Word Family I. fan, tan II. in, tin, fin	The Word Family *an* The Word Family *at* The Word Family *it*	Three word families are introduced in 72-73 rather than only two.
	Reviewing Words	Review of Word Families	
		Pocket Chart Exercise: *an*	
	Introduction of a word: *fat*	Pocket Chart Exercise: *at*	More words are introduced aside from the word families; see separate chart "Words Introduced in Blending."
	What's the Word?	The Sound Spelling Game	
Small group games	What's the Word?		This game did not prove practical.
Take-home games	Word Book Activity	Word Families Game	A new take-home game was developed to emphasize the word family approach to Blending.
Practice sheets and class charts	2 Sound Practice Sheets (Sound Matching with Letters & Word Matching)	2 Sound Practice Sheets (Blending)	Sound Practice Sheet formats tried out during Blending in 1971-72 were introduced earlier in 1972-73. New Sound Practice Sheets were developed for Blending.

WORDS INTRODUCED IN BLENDING

1971-72	1972-73
Word Family *an* ant fan pan tan	Word Family *an* fan man pan tan
Word Family *in* in fin pin tin	Word Family *at* but fat mat pat sat
Other fat	Word Family *it* bit fit pit sit
	Other pen bib pin ship fish tub bun bus nut

Teacher Materials

The teacher materials included in the Prereading Skills Program are the Prereading Skills Test, the Schedules, the Teacher's Resource File, the Management System, the Practice Sheet Booklet, and the Teacher's Handbook. Each of these components will be discussed below. The packaging of the entire program and other areas that are of concern to teachers will also be discussed. An important innovation in 1972-73 is the color-coding of the teacher's materials, to correspond with the colors used in the Prereading Skills Test. Each subtest of the Prereading Skills Test was assigned a different color. The same color scheme is repeated in the Schedules, the Resource File, and, to a limited extent, in the materials for each skill.

The Prereading Skills Test. The Prereading Skills Test is the formal assessment instrument of the Prereading Skills Program. It is a criterion-referenced tests containing individually administered subtests for each of the five prereading skills. Each subtest was revised for 1972-73 to conform to the revised instructional program. These revisions are summarized here. Lists of the items in each subtest in 71-72 and in 72-73 are included in the Appendix.

Only one form of the test is used in 72-73 instead of the form A and form B used in 71-72. The alternate forms had included some of the same items and gave the items in different orders. In each visual item in 71-72 the child looked at a letter or set of letters and then indicated which of two other letters or sets of letters looked just like the first one. Of these two choices, one was correct and one differed from the correct choice only in order, orientation, or detail. In 72-73 the visual items have the same format as in 71-72, except that the child selects the correct answer among three possibilities. The third choice is highly dissimilar from the other two; it was added to reduce the level of chance performance. In 71-72, the test included

optional visual practice items with pictures, shapes, and letters. In 72-73 these items are a prerequisite for the visual subtests. All three visual subtests have 16 items in 72-73 as in 71-72. All of the 1972-73 items use lower-case letters; in 71-72, half the Letter Order items and half the Word Detail items used all caps. In 72-73 the Letter Order items have two- and three-letter strings instead of only two-letter strings. The Word Detail items have three- and four-letter strings, instead of only three-letter strings.

The 72-73 Sound Matching Test is in two parts. The eight items in Part I have the same format as the sixteen items which comprised the entire test in 71-72. Part II consists of eight Word Matching items.

The 72-73 Sound Blending Test is different from all three versions of the Sound Blending Test that were tried in 71-72. In the 72-73 test, children blend real words. They see a three-letter word and hear the sounds of the letters. Then they indicate the correct answer for each item among three pictured choices.

The five subtests form a ringbound booklet. Instructions for administering and scoring the test are given in the Administrator's Manual, which was revised for 1972-73. In 72-73, a single scoresheet form is used for all five subtests, whereas in 71-72 there was a separate form for each subtest. The test materials also include the Posttest Information Form, which the kindergarten teacher may give to the children's first grade teacher as a record of which prereading skills each child has mastered.

Schedules. The 1971-72 field test confirmed that having independent schedules for the Visual Skills and the Sound Skills allows a teacher maximum flexibility in coordinating instruction in the two skill areas and in incorporating the Prereading Skills Program into her full kindergarten program.

Three options are available for using the schedules:

1. Use the program five days a week alternating each day between sound and visual schedules.
2. Use the program three days a week, doing both sound activities and visual activities on each of those days.
3. Combine (1) and (2), doing either sound activities or visual activities on four days, and doing both on one day.

Although most teachers in 1971-72 chose scheduling option (1), all three options were retained in the 1972-73 version of the program.

The activities for each instructional period are listed on a single Schedule page. In 1971-72 the Visual Schedule included as many instructional periods, or pages, as the Sound Schedule. The revised Visual Schedule ends two months earlier than the revised Sound Schedule, and from this time on, a teacher does only activities from the Sound Schedule. The last section of the Sound Schedule is the Sound Blending unit. To meet production requirements this section was bound as a separate Schedule, called the Blending Schedule. The revised Blending Schedule includes several Visual Review Days which designate activities to reinforce the visual skills. In 71-72 the Schedules included optional activity periods; in 72-73 these have been deleted, and every activity period is intended to be used by all classes which use the program. All together the revised Visual Schedule and the revised Sound Schedule and Blending Schedule provide for 140 instructional periods. (See the flow charts included above.) An average instructional period takes twenty minutes; however, at the beginning of the year, activity periods usually are shorter. As the children's attention span lengthens, the activity periods may extend up to half an hour.

To aid the teacher in meeting the individual needs of the children in her class, Checkpoints and Extra Help Days were added to the Schedules in 1972-73. The Checkpoint pages, six in the Visual Schedule and five in the Sound Schedule, instruct the teacher on when to give the Prereading Skills Test, how to determine which children to test, and how to group the children for instruction on the basis of the test results. Extra Help Days designate that an activity period is to be spent working with children who need special attention. The Extra Help Days take the place of "Record Card Days," which were included in the Schedules in 71-72. These days designated that the teacher was to check whether or not specified activities were notched on each child's Record Card and then work with those children whose cards were not notched to help them catch up.

All three Schedule books have the same format. This format was improved in 1972-73 to make the schedules more convenient to use. Two designs were tried in 1971-72 to decide the best arrangement of a schedule page. The first design showed the activities for two consecutive instructional periods on each page. In the second design each page listed the activities for one instructional period. The second was more popular with teachers and was used in 1972-73. The pages of the

Schedule were made larger in 1972-73, leaving more space for teachers to make notes, and the Schedule books are comb-bound rather than held with looseleaf rings.

In 1971-72 the Teacher's Resource File included cards giving suggestions for extra help for children who had difficulty with visual practice sheets, and extra practice sheets were provided for these children to do as supplementary lessons. For 1972-73, suggestions were added for children having difficulty with small group games as well as with practice sheets. Extra help suggestions were developed for the sound skills as well as the visual skills.

Practice Sheet Booklet. The Practice Sheet Booklet contains one copy of each Visual and Sound Practice Sheet for the teacher's reference. The Practice Sheet Booklet was added in 1972-73, in response to teachers' requests.

Teacher's Handbook. The Teacher's Handbook is a twenty-page manual which describes the Prereading Skills Program. It introduces the objectives of the Prereading Skills Program and defines the five prereading skills. The Handbook explains how to use the program schedules and the classroom management system in making lesson plans. It also discusses the Prereading Skills Test. The Handbook was rewritten for 1972-73 to reflect revisions made in the program. Sections were added concerning using the program with children who have non-standard speech, on involving parents in prereading activities, on meeting the needs of children who transfer into the program, and on supplementing the Prereading Skills Program with other reading and language arts activities.

Aides. Like any component of a kindergarten curriculum, the Prereading Skills Program is enhanced by the presence of an aide to increase the teacher-pupil ratio in the classroom. The program is designed, however, so that it can be successfully implemented by a teacher working independently with a group of children. Many of the 71-72 field test teachers had an aide for a part of the time they used the Prereading Skills Program. These aides included full-time paraprofessional aides, rotating resource teachers, student teachers, parent volunteers, and older student tutors. In the 72-73 version of the program, therefore, suggestions are included on how to incorporate an aide in the classroom organization for small group games and other activities.

Parent Involvement. To increase parent understanding of the program, sample letters to parents are included in the Resource File in 1972-73. The teacher may duplicate these letters and send them home with each child when he takes home materials from the Prereading Skills Program. These letters familiarize the parent with the five prereading skills, tell them how to play the take-home games with their child, and suggest supplementary sound matching activities that children and parents can do using the Sound Picture Cards and Letter-Sound Cards. By providing materials which are intended for children to play with at home, the Prereading Skills Program makes it possible for a teacher to keep parents informed of their child's progress in prereading activities. In addition to Visual and Sound Practice Sheets, children take home their own copies of Sound Picture Cards and Letter-Sound Cards. They also make "take-home games" which they may keep. In 1971-72 these games were used only in Word Detail and Sound Blending. In 1972-73 there are six take-home games throughout the year.

Packaging. Teachers indicated that in 71-72 poor packaging was a significant hindrance to effective implementation of the program. In 72-73, therefore, considerable attention was given to packaging the materials so that they are more accessible and easier to store. Except for the pocket chart/flannelboard and the Class Chart Holder, all the materials needed for the Prereading Skills Program in 72-73 are packed in 5 cubic boxes, approximately one foot on a side. The contents of each box are listed in the Inventory in the Teacher's Handbook. (A copy of this inventory is included in the Appendix.) Inside each box, the games, practice sheets, and other materials are enclosed in clear plastic bags. Many games have their titles printed on the game board, which is visible through the bag, so that no additional label is needed. The bags are placed in the order in which they are used in the program, so that a teacher can easily take out and replace materials as she needs them. This packaging system is an immeasurable improvement over the packaging used in 1971-72. In 1971-72 the games were kept in manila envelopes with small typewritten labels attached. Teachers had difficulty locating materials when they were needed. The envelopes were packed in 1 x 1 x 2 foot shipping boxes that were impractical for permanent storage unless a teacher constructed cardboard divider panels to section them off.

Assessment. In 72-73, as in 71-72, the Prereading Skills Program incorporates both formal and informal assessment. Both types of assessment aid the teacher in judging how well children are learning each skill and in determining which children are ready to begin instruction in a new skill. The program provides formal assessment through checking individuals on Letter-Sound Correspondences and giving the Prereading Skills Test, and informal assessment through observing children's performance of program activities.

Checking the learning of Letter-Sound correspondences and administering the Prereading Skills Test are not scheduled to take the place of regular activity periods. Rather, testing may extend over several days and children tested as it is convenient, for example, as they arrive at school or during snack time. Evaluation of skills with the Prereading Skills Test provides a teacher with the information necessary to group children for instruction according to their skill needs. In the 71-72 field test, checking of Letter-Sound correspondences was an informal assessment, done as part of a Take-Home Game. It was made a formal assessment in 1972-73 to allow teachers to check children individually.

Monitoring of each child's daily progress in the Prereading Skills Program is accomplished by evaluation of small group games and practice sheets. This monitoring is required so that children may be assigned to activities that they have not yet done successfully and may be given extra help as they need it. In 71-72 a distinction was made between assessing activities for participation (whether or not a child had played a game or done a practice sheet) and assessing for mastery (whether or not a child had shown a specified level of competence in an activity). Teachers were uncomfortable assessing children without regard to how well they had done, so in 72-73, the participation/mastery distinction was eliminated. In 72-73, all activities are assessed for a specified level of competence.

The Management System

The management system facilitates the individualization of instruction in the Prereading Skills Program by providing an up-to-date record of each child's progress. It consists of children's Record Cards, the notcher and skewer, and the Grouping Cards. These materials are kept in the Teacher's Resource File. The Record Card is an edge-notch card which lists all the required activities for the program with a hole for each activity. When a child satisfactorily completes an activity, the teacher notches the edge of his card corresponding to that activity, thus changing the hole to an open notch. Then, when the cards are stacked together and the skewer is placed through a hole and lifted, the cards which have been notched fall off, separating children who have completed an activity successfully from those who have not.

The children's Record Cards are easier to handle and more attractive in 1972-73 than they were in 1971-72. All of the activities are printed on one side of the card, rather than Sound activities on one side, Visual on the other. The Sound area is shaded to differentiate it from the Visual area. Fewer symbols are used on the card and, for fun, two of the Sound Pictures are reproduced on it.

The Grouping Cards, a new material in 1972-73, are miniature copies of each game. They were added in response to teachers' request for a way to label the Record Cards after they were divided into groups for games and to show children what materials they were to use. A teacher determines what game each child needs to play by skewering the Record Cards. She then stacks together the cards of children who will play the same game and "labels" the stack of cards by paper clipping a Grouping Card to it. She can thus assign children to activities without having to list the games and the names of the children. During the activity period, she shows the children the Grouping Cards as she hands them their Record Cards and tells them what game they will play. Having seen the game in miniature, a child can take out his own set of materials. A teacher may also use Grouping Cards to label the shelves where the games are stored. This makes it easier for the children to get out the materials and put them away.

To aid the teacher in implementing the management system, detailed instructions were added to the Schedules, reviewing how to skewer the Record Cards to assign children to games and how to organize the classroom for small group games. These instructions are repeated in both the Sound Schedule and the Visual Schedule for the first four times the children play small group games.

The Teacher's Resource File. The 1971-72 field test confirmed that teachers prefer the multi-sectioned, accordion-pleated file to a loose-leaf notebook. In addition to the components of the management system, the file contains the Sound Pictures, Sound Picture Stories, music for the Sound Song, and Resource File Cards, which are descriptions

of each scheduled activity. Each Resource File Card states the purpose, group size, materials, and procedure for an activity. Prerequisites for each activity, which were given in 1971-72, were deleted in 1972-73 and the procedures are stated in greater detail in 1972-73 than they were previously. Where relevant, marginal sketches were added to illustrate important steps of the procedure. A highlighter pen is included in the File in 1972-73 to encourage teachers to prepare their presentations by marking important phrases in the procedure. For small group games and visual practice sheets, the Resource File Cards also state how well a child must do in order to have his Record Card notched. Summary cards of notching criteria for the visual activities and sound skills activities were added in 1972-73. Two copies of each of these cards are provided, so that the teacher and an aide may each refer to them as they check the children's work.

Inservice. Teachers who are using the Prereading Skills Program for the first time attend a one-day training session before the start of school and an additional half-day inservice workshop three weeks after school has started and they have begun the Prereading Skills Program. In 1971-72 participants attended only a one-day meeting. A second meeting was added because teachers were overwhelmed by the amount of information to be assimilated in one day. At the full-day workshop in 72-73, as at the 71-72 workshop, teachers are familiarized with the objectives of the Prereading Skills Program and with the five prereading skills. The sequence of instructional activities for both the visual skills and the sound skills is described, and the teachers have an opportunity to play some of the small group games themselves. In 1972-73 a videotape replaces the slides that were used in 71-72 to show how the program actually is used in a kindergarten classroom. The primary purpose of the first workshop is to show the teachers how to use the Schedules and the Resource File and how to record Practice Sheet scores and Sound Picture learning on the Record Cards. Since this much knowledge enables teachers to begin using the program as soon as school starts, all the other information presented in the one-day session in 71-72 is included in the additional half-day workshop which is held three weeks after the start of school. The primary objective of this second workshop is to teach the teachers how to use the Record Cards to assign children to small group games. At both inservice sessions in 72-73, as at the 71-72 workshop, teachers use their own Schedules and Resource Files as well as sets of Record Cards which are notched in advance to simulate the grouping needs of a class at different points in the Schedules. At the 1972 inservice workshops, the teachers also receive an Inservice Manual with workbook-type pages, which they complete during the full-day inservice session.

Primary teacher's packet. Because the inservice workshops are for kindergarten teachers, the Overview Packet for Primary Teachers is provided to primary teachers to acquaint them with the prereading experiences of children who have participated in the Prereading Skills Program. The booklet included in the packet explains the objectives of the program, and describes the five prereading skills and the types of activities used to teach them. In addition to the booklet, primary teachers receive copies of the Sound Picture Cards and sample Practice Sheets. The primary teacher's packet was revised in 1972-73 to include a set of Letter-Sound Cards and the booklet was rewritten to conform to the revised program materials.

Summary

The revision of the activities and materials of the Prereading Skills Program on the basis of the 1971-72 field test should make the program more effective in meeting the objective of preparing children for reading instruction, as well as easier for the kindergarten teacher to use. The revised program was field-tested during the 1972-73 school year by 24 teachers. Five of these teachers, who had not used the program before, also participated in a field test of the inservice materials. The remaining nineteen teachers participated in the 1971-72 field test. Observation of the new teachers and consultation with all of the teachers will guide further refinement of the program as it is prepared for nationwide field testing and for commercial publication.

V
Conclusion

This report has documented both the formal assessment data and the data obtained by means of observations, questionnaires, and interviews during the 71-72 field test of the Prereading Skills Program. These data indicated that the program met most of its objectives. While analysis of teachers' feelings toward the Prereading Skills Program was not planned as part of the 71-72 field test, teachers' reactions to the program revealed that the program had unanticipated benefits. During the school year, teachers expressed increasing awareness of the importance of individualized instruction. They consequently incorporated instructional techniques and classroom management procedures from the Prereading Skills Program to facilitate individualization in other curriculum areas.

The enthusiasm of the field test teachers, as illustrated by their comments at the end of the school year, reinforced the conclusion that the 71-72 small-scale field test of the Prereading Skills Program was successful.

> I felt this was going to take so much time that it was going to overshadow the kindergarten program. But I certainly have changed my mind about this, and I feel it can be fit very comfortably into any phase of the kindergarten program, any time of the day... I think that the children themselves, with the enthusiasm they've shown toward the program, proved that it really is a success.
>
> Sharon Radke
> McKinley School
> Appleton, WI

> I think it's helped a lot in realizing children's potential. And I think it has reinforced what I have thought, that children learn a lot better and a lot faster and a lot easier when they're doing something they really enjoy.
>
> Mildred Adkins
> Marquette School
> Madison, WI

> When you keep track of each child's skills and how far he's gone in each area, it really helps. It makes you think about him more as an individual.
>
> Lois Marty
> Hawthorne School
> Madison, WI

> I think it's good because it's game-oriented. The children enjoyed the games, and they didn't realize they were learning when they played the game.
>
> Helen Stone
> McKinley School
> Appleton, WI

> I feel my children are better qualified to go into the first grade reading program than they have been in the past.
>
> Judie Berg
> Sherman School
> Madison, WI

Further Implementation Plans. During the 1972-73 school year another small-scale field test of the Prereading Skills Program was conducted. This field test was designed to evaluate the inservice training workshop as well as to determine the success of the revised program materials. The 72-73 field test included teachers who are using the Prereading Skill Program for the first time as well as teachers who participated in the 71-72 field test. The new teachers were monitored to determine the effectiveness of the inservice

workshop, while the continuing teachers were asked to appraise the revision of the materials.

Further refinements of the instructional program will be made on the basis of the 72-73 field test, and materials incorporating these changes will be distributed to teachers for use during the 73-74 school year. It is anticipated that at that time a contract for commercial publication of the Prereading Skills Program will be negotiated. A nation-wide large-scale field test of the Prereading Skills Program is planned for the 74-75 school year, and full commercial publication of the program is projected for 75-76 school year.

APPENDIX

MEMORANDUM OF AGREEMENT

Prereading

The Wisconsin Research and Development Center for Cognitive Learning and the _____School District agree cooperatively to field test during the 1971-72 academic year instructional materials in Prereading developed by the Center. Although the materials are intended for use at the Kindergarten level, success in initial reading cannot be adequately assessed until the child is in his second year of school, and thus a two-year commitment is assumed for purposes of data collection.

The Center will provide:

1. Complete inservice training to participating Kindergarten teachers.
2. All instructional and assessment materials for _____ Kindergarten teachers and their classrooms.
3. All materials required for the implementation and evaluation of the program.
4. Feedback and assistance to the cooperating staff at least once every two months in the form of a visit from a Center staff person.

The School agrees:

1. To carry out instructional activities as prescribed in the teacher's manual for a minimum of one and one-half hours per week with those children who have diagnosed weaknesses in the relevant skills.
2. To administer embedded assessments and record information on pupil progress, and to provide the same to the Center.
3. To apprise the Center of any local testing program and to share with the Center any relevant intelligence or achievement data gathered through the school's testing program. (In those rare cases where the information available from intelligence and achievement tests is not in a form that the Center can use, the Center has the privilege of gathering information in the necessary form at its expense.)
4. To release the teacher(s) for not more than two half days annually to attend planning sessions or receive inservice training.
5. To allow the Center to collect data from both Kindergarten and Grade 1 teachers and their pupils for purposes of evaluation of the field test. (Such data collection will not exceed one hour of pupil time annually.)

William R. Bush	(signed)
Deputy Director, Wisconsin Research and Development Center for Cognitive Learning	(position)

Visitation Report

_____ Teacher _____ a.m. / p.m. Date_____ Interviewer_____

I. Time Allocation
1. How often do you use the program?
2. How do you allocate your time between Sound and Visual?
3. What is the length of an average activity period? _____ Today's? _____
4. Are all the children involved in the program?
5. Where are you in the schedule? Visual _____ Sound _____
6. Are all the children at the same place in the schedule?
7. What is the length of your preparation time?

II. Activities
1. Comments about each specific activity (e.g., Does it work well? Is it effective? Is it necessary? etc.).
2. Are there any unnecessary activities included?
3. Have you added variations? What were they?
4. Do children have difficulty learning the rules of any games? Do they tire of them?
5. Do you vary the order, skip, repeat, or add activities?
6. Do you prefer to teach the sounds individually or four at a time?
7. Do children have trouble with the practice sheets? Are the class charts and stencils worthwhile?

III. Assessment
1. Do you use the Record Cards during/after each activity period?
2. Do you punch for participation? Use the X to indicate that a child has had difficulty mastering an activity?
3. Do you record the Practice Sheet scores?
4. Do you record the Sound Picture Card testing?
5. How much time do you spend on record cards? Is it worthwhile?
6. Did you pretest for this skill with the Wisconsin Basic Prereading Skills Tests? How many children were pretested? Who did the pretesting?
7. Did you pretest/posttest any children during instruction?
8. Did you posttest after instruction? How many children?
9. Are the children learning the Sound-Picture associations easily? Any problems?
10. Did you use the Sound Assessment sheets?

IV. Grouping
1. Do you use the Record Cards for grouping? What else do you do?
2. How do you form groups? (socially?)
3. Is it difficult having small groups play different games? Which games are most difficult to combine?
4. Does it take a long time for groups to get going?
5. Can children work well in small groups without supervision?
6. Have you adopted a way to differentiate instruction for near masters as opposed to non-masters?

V. Materials
1. Are there adequate materials for each game so that children can play at the level they need?
2. Are the materials durable? Are they lost frequently?
3. Are the materials packaged so that they are easy for you to get ready and to replace?
4. Are the directions for activities stated clearly in the Resource File?
5. Are you able to follow the format of the schedule?

VI. Management
1. Are there any aides?
2. How many groups are there? (large groups ____, small groups ____, pairs ____)
3. What activity is each group doing?
4. How many groups does teacher "help" in?

PREREADING FIELD TEST

School _____ Teacher _____ Date _____

Questions regarding pretesting to be answered upon completing the Preliminary activities in the Visual Schedule (page 8) and/or page 11 in the Sound Schedule. (Please do not include testing done by Center personnel.)

1. Were any children pretested before beginning Letter Order and before page 12 of the Sound Schedule? _____
2. If so, how did you select which children to pretest? _____
   _____
3. Who did the pretesting (you, an aide, both, etc.)? _____
   _____
4. Was testing difficult for you to schedule? Please explain. _____
   _____
   _____
5. When during the day was the testing done? _____
   _____
6. Was the information you received from testing useful to you? _____
   _____
7. Please note any difficulties you may have had in administering the Prereading Skills Tests. Please be specific.
   _____
   _____
   _____
   _____
8. Please add any additional comments regarding pretesting.
   _____
   _____
   _____
   _____

INTERVIEW/QUESTIONNAIRE FOR PRINCIPALS

TESTING PROGRAM

What standardized tests do you use in:	When are they given:
Kindergarten: (1st year of school)	
_____	_____
_____	_____
_____	_____
First Grade (2nd year of school)	
_____	_____
_____	_____
_____	_____

The Center will be interested in gathering test data for children in their first and second years of school at the end of the 1971-72 school year. To avoid interfering with your program, when would be a good time for us to test and/or collect data already available?

_____

ENROLLMENT

How many children are in your kindergarten? _____

How many in first grade (second year of school)? _____

Are your kindergarten children randomly assigned to an AM or PM session, or are they assigned according to predicted "ability levels" or according to birthdate, or is another method used?

_____

_____

PREREADING FIELD TEST

Principals—Interview Form (winter visit)

(Explain to principal that we are interested in his perceptions regarding the use of the Prereading Skills Program this year, and in any suggestions he may have for the follow-up study of Grade 1 next year. Point out also that his responses will in no way affect his school's use of the program.)

1. What specific feedback have you received regarding the Prereading Skills Program?

   _____
   _____
   _____

2. What do you think the teachers like best about the program?

   _____
   _____
   _____

3. Have you heard of any specific problems regarding the Prereading Skills Program?

   _____
   _____
   _____

4. What is your opinion concerning the kinds of children this program would help?

   _____
   _____
   _____

5. How do you see this program within a total language program (especially oral language)?

   _____
   _____
   _____

6. How do you feel we can best inform and perhaps change the expectations of Grade 1 teachers who will be teaching reading to the children who have mastered this program?

   _____
   _____
   _____

POSTTESTING INFORMATION

School _____

Teacher _____

Key
* Mastery
0 Non-mastery

Child's Name	Letter Order			Letter Orientation			Sound Matching			Word Detail			Sound Blending		
	Date	Form A or B	Results	Date	Form A or B	Results	Date	Form A or B	Results	Date	Form A or B	Results	Date	Form A or B	Results

Prereading Skills Test

Visual Practice Test

1971-72
(optional)

Standard	Alternates	
mi	xf	mi

1972-73
(required before a visual subtest)

Standard	Alternates		
e	m	z	e
mi	mi	xf	yo

Prereading Skills Test

Letter Order

71-72
(Form B)

Standard	Alternates	
gm	mg	gm
RF	FR	RF
AD	AD	DA
OM	MO	OM
nf	fn	nf
zp	zp	pz
gh	hg	gh
kw	wk	kw
SV	SV	VS
LQ	QL	LQ
JW	WJ	JW
GP	PG	GP
dy	dy	yd
BC	CB	BC
jt	tj	jt
xb	bx	xb

72-73

Standard	Alternates		
cez	cez	cze	vtk
ak	en	ak	ka
gl	gl	lg	wn
vb	bv	xo	vb
fe	ef	fe	np
ujh	uhj	ozr	ujh
wra	utf	rwa	wra
xc	xc	hm	cx
ytm	mty	lzv	ytm
pt	ms	pt	tp
mr	fy	rm	mr
ein	ein	ien	gzb
ido	odi	ido	kwh
uas	uas	ujg	sau
qu	kl	uq	qu
osp	ops	osp	vea

Prereading Skills Test

Letter Orientation

71-72
(Form B)

Standard	Alternates	
b	d	b
di	bi	di
qi	qi	pi
ep	eq	ep
d	b	d
bi	bi	di
oq	op	oq
pa	qa	pa
ad	ad	ab
p	q	p
ab	ad	ab
qe	pe	qe
ud	ub	ud
bu	du	bu
q	p	q
op	op	oq

72-73

Standard	Alternates		
s	s	z	y
p	p	q	x
b	d	o	b
q	p	d	i
w	l	m	w
b	m	b	p
q	p	q	u
p	q	t	p
d	d	s	b
n	f	n	u
q	e	p	q
d	q	d	n
b	w	b	d
z	s	j	z
d	d	n	b
p	p	s	b

Prereading Skills Test

Word Detail

71-72
(Form B)

Standard	Alternates	
cyt	cfy	cty
uhg	ubg	uhg
ODA	QDA	ODA
jdr	gdr	jdr
bzp	hzp	bzp
ZCB	ZCB	ZOB
pef	pof	pef
DQI	BQI	DQI
ogt	cgt	ogt
UXS	UKS	UXS
EJO	EJO	FJO
ynk	ymk	ynk
glx	glx	gtx
PGL	RGL	PGL
SMR	SNR	SMR
CVP	CNP	CVP

72-73

Standard	Alternates		
rth	nth	rth	aoe
olka	olka	zsuv	otka
arze	urze	arze	iktd
vmdg	tfzi	vmdg	vmog
hblf	hblt	vwxaz	hblf
ejyl	ejyl	ojyl	mnr
gahy	gahv	neiwo	gahy
wihr	wibr	kfjt	wihr
vci	vci	wci	gujs
sroc	sroe	bpdy	sroc
eixm	hlb	ejxm	eixm
sbu	sbu	sku	rcyz
fijn	?em	fijn	fijh
geix	geix	yeix	kfl
dfkn	josv	dfkn	dfxn
zva	lfh	zvq	zva

Prereading Skills Test

Sound Matching

1971-72
(Form B)

The girl showing you to be quiet says *sh*. You will hear the *sh* sound in one of these words. Point to the picture that has the *sh* sound.

Practice Items

shovel	pig	bed
box	knife	*brush*

Test Items

flag	*shoe*	cup
dog	*fish*	house
lamp	tire	*ship*
leaf	ring	*shell*

The surprised boy says ō. You will hear ō sound in one of the words. Point to the picture that has the ō sound.

Test Items

bowl	ear	cup
bag	*goat*	fence
rose	chair	pig
drum	*bone*	cheese

The hissing snake says *s*. You will hear the *s* sound in one of these words. Point to the picture that has the *s* sound.

Test Items

fire	nail	*glass*
ball	glove	*saw*
car	*sock*	tree
mouse	foot	keys

The boy eating cake says *m*. You will hear the *m* sound in one of these words. Point to the picture that has the *m* sound.

Test Items

horse	soap	*monkey*
church	*comb*	hat
bird	*drum*	frog
moon	kite	ball

1972-73

Part I

The mad cat says *f*. You will hear the *f* sound in one of these words. Point to the picture that has the *f* sound.

Practice Items

horse	bread	*foot*
coat	*giraffe*	ball

Test Items

keys	*fan*	drum
knife	broom	pig
box	pan	*fish*
bed	*leaf*	sun

The surprised boy says ō. You will hear ō sound in one of the words. Point to the picture that has the ō sound.

Test Items

tire	*bow*	skate
rope	swing	net
bone	cow	truck
hat	bike	*nose*

Part II

Do these words start with the same sound?

Practice Items

seal-sock
mop-tooth

Test Items

ghost-shelf
radio-roof
lamp-lock
violin-beads
chain-cherry
yarn-cage
jet-knob
wagon-worm

Prereading Skills Test

Sound Blending

1971-72

First Version

Try to guess what word I'm making. (The test administrator pauses for a count of 2 before pronouncing the final sound.)

Practice Items

COA--T
NOI--SE
LIGH--T

Test Items

FEE--T	BI--KE	SOU--P
MOU--SE	A--PE	CHEE--K
PEA--CH	BEA--D	RI--DE
BOA--T	NO--SE	LEA--F
GOO--SE	CA--VE	CA--GE

Second Version

I'm going to show you some letters. I want you to tell me what word they make. It's a funny word—a word you've never heard before.

Demonstration

The test administrator points to the letters, saying the sound of each one. Then she says the blended word.

neb

Practice Items

pif
fap

Test Items

nib	nif	pim
fut	bam	feb
maf	tup	tif
meb	bem	mub

Third Version

Same instructions as for second version.

Demonstration

nif

Practice Items

fin
taf

Test Items

tif	fap	nip	fip	tap
nit	paf	nat	pif	naf

1972-73

These letters make a word. Is it _____, _____, or _____? Listen: _____, _____, _____. Which picture did I say?

Practice Items

letters	pictures		
pen	pear	can	pen
bun	sun	bun	ball
tub	tub	tongue	web

Test Items

man	man	mask	pan
pig	pin	pig	log
net	tooth	neck	net
bat	coat	bat	bed
web	bib	watch	web
pan	pan	pie	can
map	match	cup	map
gas	glass	gas	ghost
gum	gum	drum	goat
fish	fence	comb	fish
sun	can	saw	sun
bus	box	bus	house
hat	hat	pot	hand
ship	shirt	soap	ship
nut	nut	bat	nose

GPO 808-052-2

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